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(21) International Application Number: PCT/US99/24206 (22) International Filing Date: 15 October 1999 (15.10.99) (30) Priority Data: 60/104,436 15 October 1998 (15.10.98) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/104,436 (CIP) Filed on 15 October 1998 (15.10.98) (71) Applicant (for all designated States except US): GENETICS INSTITUTE, INC. [US/US]; 87 Cambridge Park Drive, Cambridge, MA 02140 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): JACOBS, Kenneth [US/US]; 151 Beaumont Avenue, Newton, MA 02160 (US). MCCOY, John, M. [GB/US]; 56 Howard Street, Reading, MA 01867 (US). LaVALLIE, Edward, R. [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US). COLLINS-RACIE, Lisa, A. [US/US]; 124 School Street, Acton, MA 01720 (US). EVANS, Cheryl [GB/US]; 18801 Bent Willow Circle, Germantown, MD 20874 (US).			(74) Agent: SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Department - 2B, One Campus Drive, Parsippany, NJ 07054 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)			
(57) Abstract Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.			

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

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FIELD OF THE INVENTION

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated
5 polynucleotide comprising a nucleotide sequence selected from the group consisting of:

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NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or a complement of said sequence.

25 In other embodiments, the present invention provides an isolated
polynucleotide consisting of a nucleotide sequence selected from the group consisting
of:

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or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

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 NO:2485, SEQ ID NO:2486, SEQ ID NO:2487, SEQ ID NO:2488, SEQ ID
 NO:2489, SEQ ID NO:2490, SEQ ID NO:2491, SEQ ID NO:2492, SEQ ID
 NO:2493, SEQ ID NO:2494, SEQ ID NO:2495, SEQ ID NO:2496, SEQ ID
 20 NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or to a complement of said sequence.

The invention also provides for proteins encoded by the above-described
 polynucleotides. In certain preferred embodiments, the polynucleotide is operably
 linked to an expression control sequence. The invention also provides a host cell,
 25 including bacterial, yeast, insect and mammalian cells, transformed with such
 polynucleotide compositions. Also provided by the present invention are organisms
 that have enhanced, reduced, or modified expression of the gene(s) corresponding
 to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- 30
- (a) growing a culture of the host cell transformed with such
polynucleotide compositions in a suitable culture medium; and
 - (b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

10 DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

15 Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

	1	AA239	18	AC365	35	AE327	52	AE479
20	2	AA249	19	AC384	36	AE358	53	AE502
	3	AA25	20	AC407	37	AE38	54	AE503
	4	AA292	21	AD599	38	AE382	55	AE520
	5	AA306	22	AD647	39	AE396	56	AE545
	6	AA336	23	AD655	40	AE399	57	AE549
25	7	AA34	24	AD803	41	AE401	58	AE57
	8	AA342	25	AE103	42	AE402	59	AE570
	9	AA356	26	AE210	43	AE403	60	AE595
	10	AA360	27	AE238	44	AE417	61	AE601
	11	AA38	28	AE252	45	AE424	62	AE606
30	12	AA43	29	AE289	46	AE435	63	AE610
	13	AA50	30	AE290	47	AE440	64	AE64
	14	AA64	31	AE302	48	AE443	65	AE648
	15	AC15	32	AE303	49	AE445	66	AE660
	16	AC334	33	AE314	50	AE468	67	AE674
35	17	AC349	34	AE319	51	AE471	68	AE693

	69	AE696	106	AH556	143	AM198	180	AT205
	70	AE90	107	AH601	144	AM260	181	AT211
	71	AF18	108	AH604	145	AM262	182	AT212
	72	AF217	109	AH612	146	AM292	183	AT215
5	73	AF221	110	AH622	147	AM338	184	AT216
	74	AF271	111	AH63	148	AM340	185	AT368
	75	AF276	112	AH652	149	AM341	186	AU112
	76	AF28	113	AH666	150	AM483	187	AU117
	77	AF42	114	AH8	151	AM57	188	AV10
10	78	AF49	115	AJ102	152	AM574	189	AV110
	79	AF51	116	AJ118	153	AM58	190	AV117
	80	AF52	117	AJ149	154	AM690	191	AV129
	81	AF54	118	AJ151	155	AM691	192	AV141
	82	AF85	119	AJ75	156	AM699	193	AV152
15	83	AG107	120	AJ88	157	AM748	194	AV156
	84	AG121	121	AK296	158	AM764	195	AV179
	85	AG175	122	AK384	159	AM776	196	AV189
	86	AG237	123	AK421	160	AM830	197	AV22
	87	AG99	124	AK489	161	AM87	198	AV227
20	88	AH106	125	AK492	162	AM880	199	AV30
	89	AH123	126	AK533	163	AM900	200	AV6
	90	AH144	127	AK554	164	AM905	201	AV66
	91	AH191	128	AK595	165	AM916	202	AV7
	92	AH196	129	AK600	166	AM946	203	AV92
25	93	AH230	130	AK672	167	AM964	204	AW242
	94	AH239	131	AK698	168	AN89	205	AX2
	95	AH356	132	AK759	169	AO90	206	AY123
	96	AH372	133	AM1019	170	AP132	207	AY177
	97	AH38	134	AM1044	171	AP240	208	AY225
30	98	AH383	135	AM1057	172	AP244	209	AY254
	99	AH389	136	AM1085	173	AQ51	210	AY322
	100	AH406	137	AM1111	174	AR260	211	AY344
	101	AH418	138	AM1122	175	AS286	212	AY412
	102	AH51	139	AM1131	176	AS32	213	AY434
35	103	AH547	140	AM157	177	AS34	214	AY448
	104	AH55	141	AM184	178	AS98	215	AY97
	105	AH555	142	AM185	179	AT106	216	AZ278

	217	BB8	254	BD368	291	BV20	328	D137
	218	BB9	255	BD451	292	BV223	329	D147
	219	BC128	256	BD453	293	BZ398	330	D24
	220	BC130	257	BD471	294	BZ595	331	DD23
5	221	BC132	258	BD54	295	C282	332	DD239
	222	BC170	259	BD81	296	C545	333	DD254
	223	BC226	260	BG46	297	C662	334	DD344
	224	BC246	261	BG52	298	CA1	335	DD523
	225	BC253	262	BG54	299	CA100	336	DD70
10	226	BC262	263	BG65	300	CA104	337	DD77
	227	BC272	264	BG66	301	CA105	338	DG288
	228	BC294	265	BG68	302	CA106	339	DG319
	229	BC295	266	BG77	303	CA114	340	DH1147
	230	BC300	267	BG78	304	CA119	341	DI396
15	231	BC303	268	BH126	305	CA127	342	DL486
	232	BC306	269	BH212	306	CA133	343	DO441
	233	BC308	270	BH349	307	CA15	344	DP101
	234	BC317	271	BI101	308	CA157	345	DP102
	235	BC351	272	BJ35	309	CA165	346	DP105
20	236	BC370	273	BJ65	310	CA173	347	DP106
	237	BC390	274	BL150	311	CA176	348	DP109
	238	BC409	275	BN13	312	CA180	349	DP111
	239	BC410	276	BN185	313	CA183	350	DP120
	240	BC420	277	BN203	314	CA3	351	DP122
25	241	BC430	278	BN34	315	CA41	352	DP127
	242	BC456	279	BN381	316	CA44	353	DP131
	243	BC457	280	BN73	317	CA51	354	DP135
	244	BC467	281	BO13	318	CA57	355	DP140
	245	BC471	282	BO342	319	CA79	356	DP147
30	246	BC473	283	BO356	320	CA94	357	DP175
	247	BC72	284	BO41	321	CC53	358	DP180
	248	BC75	285	BO541	322	CJ210	359	DP97
	249	BD112	286	BP116	323	CJ384	360	DU499
	250	BD249	287	BP578	324	CL164	361	DY39
35	251	BD283	288	BP582	325	CR1187	362	DY691
	252	BD306	289	BP822	326	CR552	363	DZ23
	253	BD353	290	BT138	327	D130	364	EF109

	365	EK610	402	GL404	439	HS11	476	IS114
	366	EM161	403	GL417	440	HS110	477	IS20
	367	EN426	404	GL428	441	HS154	478	IS337
	368	FE109	405	GL44	442	HS165	479	IS475
5	369	FH109	406	GL50	443	HS177	480	IS566
	370	FQ712	407	GW159	444	HS25	481	IS589
	371	FT124	408	GW263	445	HS278	482	IT213
	372	FT214	409	GW38	446	HS34	483	IT217
	373	FT222	410	GW48	447	HS351	484	IT240
10	374	FT318	411	GW75	448	HS413	485	IT250
	375	FT358	412	GZ440	449	HS432	486	IT263
	376	FT58	413	H1138	450	HS460	487	IT63
	377	FT62	414	H118	451	HS465	488	IT98
	378	FU149	415	H1305	452	HS470	489	IU103
15	379	FU171	416	H1317	453	HS66	490	IU176
	380	FU284	417	H1419	454	HS662	491	IU190
	381	FU309	418	H1428	455	HV233	492	IU202
	382	FU344	419	H1496	456	HX92	493	IU23
	383	FZ150	420	H206	457	IB60	494	IU61
20	384	G81	421	H237	458	IE42	495	IU63
	385	GA348	422	H298	459	IF338	496	IU88
	386	GC471	423	H31	460	IF50	497	IW47
	387	GC479	424	H318	461	IF605	498	IW66
	388	GE444	425	H455	462	IJ1129	499	IW73
25	389	GJ217	426	H617	463	IJ1193	500	IW79
	390	GJ270	427	H83	464	IJ1442	501	IW90
	391	GJ286	428	H857	465	IJ1542	502	IX118
	392	GL106	429	H863	466	IJ181	503	IX125
	393	GL110	430	H905	467	IJ226	504	IX62
30	394	GL140	431	H963	468	IK125	505	IY40
	395	GL15	432	HB1142	469	IK418	506	IY47
	396	GL278	433	HB1209	470	IK58	507	IY58
	397	GL294	434	HE153	471	IK93	508	IZ47
	398	GL32	435	HE212	472	IR162	509	J218
35	399	GL323	436	HL458	473	IR30	510	J59
	400	GL330	437	HR211	474	IR31	511	JA64
	401	GL366	438	HS100	475	IR70	512	JB17

	513	JF15	550	K113	587	K39	624	KB57
	514	JF64	551	K115	588	K40	625	KG2
	515	JF76	552	K122	589	K409	626	KH13
	516	JK39	553	K139	590	K417	627	KI195
5	517	JK45	554	K148	591	K421	628	KI253
	518	JL55	555	K155	592	K422	629	KI362
	519	JM33	556	K168	593	K426	630	KI493
	520	JM49	557	K176	594	K433	631	KJ1
	521	JM64	558	K178	595	K446	632	KJ10
10	522	JM75	559	K18	596	K464	633	KJ120
	523	JN33	560	K213	597	K483	634	KJ124
	524	JN85	561	K22	598	K488	635	KJ131
	525	JQ1	562	K227	599	K490	636	KJ141
	526	JQ29	563	K232	600	K51	637	KJ142
15	527	JS7	564	K233	601	K511	638	KJ19
	528	JT113	565	K235	602	K524	639	KJ190
	529	JT118	566	K240	603	K525	640	KJ215
	530	JT170	567	K254	604	K529	641	KJ218
	531	JT6	568	K255	605	K568	642	KJ231
20	532	JT61	569	K264	606	K60	643	KJ247
	533	JT62	570	K271	607	K619	644	KJ258
	534	JT65	571	K280	608	K640	645	KJ320
	535	JT77	572	K281	609	K67	646	KJ321
	536	JW117	573	K285	610	K71	647	KJ360
25	537	JW21	574	K289	611	K80	648	KJ41
	538	JW35	575	K294	612	K82	649	KJ46
	539	JW48	576	K30	613	KA105	650	KJ469
	540	JW91	577	K302	614	KA107	651	KJ480
	541	JY112	578	K314	615	KA108	652	KJ539
30	542	JY162	579	K32	616	KA113	653	KJ600
	543	JY2	580	K322	617	KA115	654	KJ611
	544	JY6	581	K330	618	KA3	655	KJ623
	545	JY61	582	K361	619	KA46	656	KJ63
	546	JZ13	583	K363	620	KA97	657	KJ664
35	547	JZ33	584	K368	621	KB137	658	KJ689
	548	JZ95	585	K370	622	KB2	659	KJ699
	549	K10	586	K38	623	KB49	660	KJ713

	661	KJ723	698	KN606	735	KX136	772	LE75
	662	KJ727	699	KN628	736	KX170	773	LF191
	663	KJ737	700	KN678	737	KY2	774	LF250
	664	KJ740	701	KO148	738	KY49	775	LF268
5	665	KJ748	702	KO174	739	KZ135	776	LF273
	666	KJ772	703	KO179	740	KZ165	777	LF307
	667	KJ777	704	KO258	741	KZ208	778	LF341
	668	KJ78	705	KO266	742	KZ288	779	LF378
	669	KJ793	706	KO319	743	KZ312	780	LF400
10	670	KJ8	707	KO332	744	KZ35	781	LF416
	671	KJ804	708	KO481	745	KZ46	782	LF470
	672	KJ807	709	KO50	746	KZ56	783	LF56
	673	KJ82	710	KO508	747	L102	784	LF6
	674	KJ853	711	KO575	748	L106	785	LG101
15	675	KJ870	712	KP86	749	L108	786	LG128
	676	KJ876	713	KQ27	750	L12	787	LG151
	677	KJ879	714	KR169	751	L129	788	LG155
	678	KJ96	715	KR190	752	L137	789	LG174
	679	KL109	716	KR221	753	L153	790	LG189
20	680	KL118	717	KR240	754	L161	791	LG237
	681	KL823	718	KR299	755	L189	792	LG26
	682	KL883	719	KR38	756	L195	793	LG264
	683	KL903	720	KS20	757	L196	794	LG280
	684	KM14	721	KS40	758	L198	795	LG322
25	685	KM157	722	KS41	759	L2	796	LG64
	686	KM225	723	KS47	760	L200	797	LH156
	687	KM288	724	KS71	761	L202	798	LH376
	688	KM309	725	KT25	762	L209	799	LI210
	689	KN1010	726	KT61	763	L238	800	LI302
30	690	KN1146	727	KU84	764	L250	801	LI307
	691	KN157	728	KU95	765	L256	802	LI392
	692	KN159	729	KV10	766	L3	803	LI506
	693	KN436	730	KV16	767	L5	804	LI515
	694	KN439	731	KV29	768	L64	805	LI674
35	695	KN446	732	KW27	769	L69	806	LI684
	696	KN487	733	KW28	770	LC85	807	LI705
	697	KN498	734	KW44	771	LE10	808	LI767

	809	LJ103	846	LR190	883	LS44	920	LU556
	810	LJ119	847	LR204	884	LS45	921	LU558
	811	LJ12	848	LR220	885	LS50	922	LU580
	812	LJ145	849	LR260	886	LS62	923	LU697
5	813	LJ290	850	LR286	887	LS87	924	LU724
	814	LK17	851	LR315	888	LS9	925	LU789
	815	LK57	852	LR32	889	LS98	926	LU810
	816	LL22	853	LR323	890	LT195	927	LU811
	817	LL89	854	LR337	891	LT255	928	LU820
10	818	LN86	855	LR347	892	LT28	929	LU864
	819	LO220	856	LR360	893	LT285	930	LV118
	820	LO292	857	LR381	894	LT289	931	LV157
	821	LO311	858	LR398	895	LT321	932	LV2
	822	LO32	859	LR406	896	LT369	933	LV209
15	823	LP118	860	LR432	897	LT380	934	LV253
	824	LP197	861	LR447	898	LT384	935	LV292
	825	LP274	862	LR561	899	LT386	936	LV296
	826	LP391	863	LR568	900	LT390	937	LV310
	827	LP436	864	LR57	901	LT403	938	LV317
20	828	LP474	865	LR596	902	LT410	939	LV331
	829	LP529	866	LR607	903	LT48	940	LV371
	830	LP547	867	LR612	904	LT595	941	LV376
	831	LP562	868	LR618	905	LT620	942	LV388
	832	LP572	869	LR636	906	LT634	943	LV435
25	833	LP574	870	LR76	907	LT646	944	LV449
	834	LP584	871	LR79	908	LT686	945	LV462
	835	LP585	872	LR95	909	LT96	946	LV505
	836	LP615	873	LS101	910	LU127	947	LV506
	837	LP631	874	LS120	911	LU164	948	LV528
30	838	LP667	875	LS121	912	LU211	949	LV555
	839	LP672	876	LS123	913	LU309	950	LV621
	840	LP675	877	LS139	914	LU38	951	LV85
	841	LP97	878	LS150	915	LU380	952	LV98
	842	LR110	879	LS16	916	LU399	953	LW1
35	843	LR128	880	LS18	917	LU460	954	LW104
	844	LR141	881	LS203	918	LU480	955	LW113
	845	LR170	882	LS36	919	LU524	956	LW123

	957	LW126	994	M66	1031	MC361	1068	ME252
	958	LW145	995	M8	1032	MC367	1069	ME253
	959	LW150	996	M83	1033	MC376	1070	ME258
	960	LW59	997	M93	1034	MC413	1071	ME387
5	961	LW63	998	M95	1035	MC69	1072	ME44
	962	LW97	999	MA101	1036	MC83	1073	ME456
	963	LX106	1000	MA122	1037	MC88	1074	ME495
	964	LX107	1001	MA130	1038	MC96	1075	ME505
	965	LX111	1002	MA158	1039	MD112	1076	ME514
10	966	LX115	1003	MA172	1040	MD124	1077	ME519
	967	LX121	1004	MA174	1041	MD167	1078	ME569
	968	LX128	1005	MA232	1042	MD169	1079	ME596
	969	LX135	1006	MA270	1043	MD170	1080	ME614
	970	LX138	1007	MB261	1044	MD171	1081	ME691
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	972	LX174	1009	MB365	1046	MD183	1083	ME721
	973	LX176	1010	MB85	1047	MD300	1084	ME744
	974	LX18	1011	MB88	1048	MD303	1085	ME756
	975	LX226	1012	MC11	1049	MD312	1086	ME771
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	979	LX344	1016	MC155	1053	MD467	1090	MF135
	980	LX358	1017	MC180	1054	MD500	1091	MG101
25	981	LX59	1018	MC199	1055	MD521	1092	MG105
	982	LX73	1019	MC252	1056	MD536	1093	MG141
	983	LZ143	1020	MC286	1057	MD54	1094	MG168
	984	LZ290	1021	MC293	1058	MD544	1095	MG184
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	1113	MH318	1150	MI479	1187	MK337	1224	MM167
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	1115	MH429	1152	MI561	1189	MK377	1226	MM197
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	1123	MH703	1160	MJ310	1197	ML234	1234	MM426
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	1127	MI102	1164	MJ403	1201	ML246	1238	MM543
	1128	MI138	1165	MJ411	1202	ML265	1239	MM561
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	1130	MI213	1167	MJ462	1204	ML285	1241	MM567
	1131	MI226	1168	MJ476	1205	ML40	1242	MM658
	1132	MI232	1169	MJ48	1206	ML460	1243	MM670
	1133	MI276	1170	MJ80	1207	ML468	1244	MM72
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	1135	MI318	1172	MJ99	1209	MI546	1246	MN219
	1136	MI327	1173	MK106	1210	ML550	1247	MN265
	1137	MI330	1174	MK112	1211	ML551	1248	MN275
	1138	MI350	1175	MK135	1212	ML564	1249	MN296
35	1139	MI354	1176	MK147	1213	ML601	1250	MN297
	1140	MI356	1177	MK2	1214	ML616	1251	MN320
	1141	MI361	1178	MK205	1215	ML636	1252	MN341

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	1270	MP34	1307	MY108	1344	N154	1381	NA118
	1271	MP36	1308	MY111	1345	N158	1382	NA12
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	1404	NA227	1441	NA84	1478	NC112	1515	NF194
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	1572	NG635	1609	NHAE123	1646	NI76	1683	NL567
25	1573	NG67	1610	NHAE149	1647	NI93	1684	NL572
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	1579	NH28	1616	NHAE331	1653	NK24	1690	NL641
	1580	NH315	1617	NHAE96	1654	NK27	1691	NL659
	1581	NH328	1618	NHAG1	1655	NK40	1692	NL701
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	1585	NH44	1622	NHAG230	1659	NL139	1696	NM134

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	1710	NM218	1747	NN247	1784	NN90	1821	NP32
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	1712	NM4	1749	NN26	1786	NO48	1823	NP4
	1713	NM47	1750	NN260	1787	NP104	1824	NP46
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	1719	NM95	1756	NN29	1793	NP137	1830	NP96
	1720	NM99	1757	NN295	1794	NP156	1831	NQ25
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	1729	NN134	1766	NN322	1803	NP206	1840	NR55
	1730	NN137	1767	NN323	1804	NP210	1841	NR65
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	1845	NS197	1882	NT789	1919	O2	1956	PC442
	1846	NS202	1883	NT829	1920	O238	1957	PD125
	1847	NS236	1884	NT830	1921	O271	1958	PD212
	1848	NS58	1885	NU101	1922	O279	1959	PD233
5	1849	NS65	1886	NU130	1923	O328	1960	PD240
	1850	NS70	1887	NU14	1924	O336	1961	PD278
	1851	NT271	1888	NU177	1925	O394	1962	PD309
	1852	NT301	1889	NU232	1926	O395	1963	PD319
	1853	NT374	1890	NU34	1927	O406	1964	PD444
10	1854	NT382	1891	NU35	1928	O84	1965	PD456
	1855	NT385	1892	NU356	1929	P12	1966	PE113
	1856	NT392	1893	NV120	1930	P2	1967	PE115
	1857	NT393	1894	NV213	1931	P22	1968	PE126
	1858	NT394	1895	NW175	1932	P30	1969	PE128
15	1859	NT396	1896	NW68	1933	P35	1970	PE143
	1860	NT418	1897	NW84	1934	P39	1971	PE159
	1861	NT428	1898	NX135	1935	P405	1972	PE163
	1862	NT429	1899	NX154	1936	P459	1973	PE166
	1863	NT430	1900	NY178	1937	P53	1974	PE172
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	1865	NT441	1902	NZ1	1939	P8	1976	PE186
	1866	NT444	1903	NZ101	1940	P9	1977	PE19
	1867	NT45	1904	NZ149	1941	PA85	1978	PE190
	1868	NT453	1905	NZ187	1942	PB15	1979	PE204
25	1869	NT457	1906	NZ190	1943	PB165	1980	PE205
	1870	NT512	1907	NZ229	1944	PB166	1981	PE213
	1871	NT528	1908	NZ345	1945	PB60	1982	PE223
	1872	NT53	1909	NZ77	1946	PC201	1983	PE227
	1873	NT533	1910	NZ85	1947	PC262	1984	PE23
30	1874	NT678	1911	O117	1948	PC335	1985	PE246
	1875	NT698	1912	O12	1949	PC349	1986	PE247
	1876	NT730	1913	O131	1950	PC379	1987	PE251
	1877	NT732	1914	O14	1951	PC381	1988	PE256
	1878	NT733	1915	O140	1952	PC41	1989	PE261
35	1879	NT742	1916	O177	1953	PC410	1990	PE262
	1880	NT746	1917	O185	1954	PC424	1991	PE272
	1881	NT780	1918	O199	1955	PC425	1992	PE286

	1993	PE287	2030	PE622	2067	PG117	2104	PJ193
	1994	PE293	2031	PE642	2068	PG195	2105	PJ196
	1995	PE299	2032	PE645	2069	PG284	2106	PJ212
	1996	PE301	2033	PE650	2070	PG330	2107	PJ239
5	1997	PE308	2034	PE659	2071	PG371	2108	PJ26
	1998	PE318	2035	PE673	2072	PG394	2109	PJ265
	1999	PE338	2036	PE676	2073	PG397	2110	PJ299
	2000	PE340	2037	PE677	2074	PG457	2111	PJ311
	2001	PE363	2038	PE678	2075	PH148	2112	PJ314
10	2002	PE383	2039	PE691	2076	PH174	2113	PJ317
	2003	PE399	2040	PE70	2077	PH226	2114	PJ323
	2004	PE400	2041	PE727	2078	PH60	2115	PJ350
	2005	PE403	2042	PE738	2079	PH79	2116	PJ356
	2006	PE416	2043	PE750	2080	PH92	2117	PJ365
15	2007	PE430	2044	PE765	2081	PI13	2118	PJ372
	2008	PE443	2045	PE768	2082	PI191	2119	PJ375
	2009	PE47	2046	PE776	2083	PI198	2120	PJ414
	2010	PE480	2047	PE777	2084	PI231	2121	PJ422
	2011	PE482	2048	PE78	2085	PI25	2122	PJ433
20	2012	PE503	2049	PE789	2086	PI279	2123	PJ439
	2013	PE505	2050	PE80	2087	PI323	2124	PJ46
	2014	PE512	2051	PE806	2088	PI40	2125	PJ463
	2015	PE518	2052	PE807	2089	PI62	2126	PJ471
	2016	PE526	2053	PE808	2090	PJ1	2127	PJ488
25	2017	PE540	2054	PE817	2091	PJ11	2128	PJ495
	2018	PE541	2055	PE834	2092	PJ130	2129	PJ496
	2019	PE546	2056	PE840	2093	PJ132	2130	PJ502
	2020	PE549	2057	PE842	2094	PJ14	2131	PJ518
	2021	PE551	2058	PE843	2095	PJ142	2132	PJ525
30	2022	PE564	2059	PE862	2096	PJ145	2133	PJ53
	2023	PE565	2060	PE91	2097	PJ154	2134	PJ544
	2024	PE567	2061	PF146	2098	PJ157	2135	PJ546
	2025	PE571	2062	PF231	2099	PJ161	2136	PJ78
	2026	PE574	2063	PF291	2100	PJ167	2137	PJ8
35	2027	PE584	2064	PF296	2101	PJ172	2138	PJ95
	2028	PE585	2065	PF3	2102	PJ181	2139	PK100
	2029	PE615	2066	PF375	2103	PJ186	2140	PK103

	2141	PK106	2178	PK558	2215	PL207	2252	PL491
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	2146	PK155	2183	PK65	2220	PL268	2257	PL52
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	2156	PK259	2193	PK817	2230	PL358	2267	PL603
	2157	PK262	2194	PK819	2231	PL36	2268	PL614
	2158	PK264	2195	PK829	2232	PL360	2269	PL658
	2159	PK266	2196	PK831	2233	PL369	2270	PL664
20	2160	PK267	2197	PK855	2234	PL378	2271	PL67
	2161	PK271	2198	PK857	2235	PL385	2272	PL673
	2162	PK284	2199	PK864	2236	PL386	2273	PL69
	2163	PK317	2200	PK878	2237	PL391	2274	PL701
	2164	PK326	2201	PL104	2238	PL409	2275	PL71
25	2165	PK332	2202	PL105	2239	PL414	2276	PL719
	2166	PK335	2203	PL106	2240	PL42	2277	PL725
	2167	PK359	2204	PL110	2241	PL421	2278	PL730
	2168	PK366	2205	PL111	2242	PL433	2279	PL741
	2169	PK398	2206	PL125	2243	PL434	2280	PL747
30	2170	PK405	2207	PL146	2244	PL44	2281	PL750
	2171	PK430	2208	PL157	2245	PL445	2282	PL751
	2172	PK436	2209	PL159	2246	PL455	2283	PL765
	2173	PK457	2210	PL16	2247	PL457	2284	PL772
	2174	PK473	2211	PL164	2248	PL461	2285	PL773
35	2175	PK474	2212	PL189	2249	PL463	2286	PL776
	2176	PK503	2213	PL19	2250	PL464	2287	PL784
	2177	PK551	2214	PL205	2251	PL486	2288	PL803

	2289	PL830	2326	PM260	2363	PM516	2400	PM783
	2290	PL845	2327	PM275	2364	PM523	2401	PM789
	2291	PL85	2328	PM289	2365	PM524	2402	PM790
	2292	PL87	2329	PM297	2366	PM527	2403	PM801
5	2293	PL89	2330	PM303	2367	PM529	2404	PM803
	2294	PM1	2331	PM305	2368	PM53	2405	PM812
	2295	PM103	2332	PM306	2369	PM537	2406	PM830
	2296	PM105	2333	PM310	2370	PM545	2407	PM840
	2297	PM110	2334	PM314	2371	PM546	2408	PM841
10	2298	PM113	2335	PM323	2372	PM554	2409	PM842
	2299	PM126	2336	PM34	2373	PM562	2410	PM843
	2300	PM129	2337	PM347	2374	PM579	2411	PM849
	2301	PM136	2338	PM362	2375	PM583	2412	PM854
	2302	PM141	2339	PM371	2376	PM596	2413	PM96
15	2303	PM142	2340	PM385	2377	PM6	2414	PO12
	2304	PM144	2341	PM387	2378	PM601	2415	PO30
	2305	PM150	2342	PM39	2379	PM605	2416	PO36
	2306	PM158	2343	PM393	2380	PM623	2417	PO42
	2307	PM161	2344	PM397	2381	PM624	2418	PO72
20	2308	PM170	2345	PM4	2382	PM627	2419	PP1
	2309	PM173	2346	PM40	2383	PM633	2420	PP10
	2310	PM180	2347	PM404	2384	PM672	2421	PP101
	2311	PM182	2348	PM412	2385	PM681	2422	PP110
	2312	PM19	2349	PM413	2386	PM692	2423	PP117
25	2313	PM195	2350	PM415	2387	PM696	2424	PP128
	2314	PM198	2351	PM42	2388	PM697	2425	PP131
	2315	PM200	2352	PM421	2389	PM717	2426	PP133
	2316	PM202	2353	PM430	2390	PM722	2427	PP136
	2317	PM21	2354	PM434	2391	PM738	2428	PP138
30	2318	PM213	2355	PM446	2392	PM741	2429	PP163
	2319	PM217	2356	PM455	2393	PM749	2430	PP165
	2320	PM229	2357	PM46	2394	PM753	2431	PP173
	2321	PM243	2358	PM476	2395	PM758	2432	PP175
	2322	PM245	2359	PM482	2396	PM767	2433	PP194
35	2323	PM248	2360	PM503	2397	PM769	2434	PP210
	2324	PM249	2361	PM51	2398	PM776	2435	PP212
	2325	PM256	2362	PM514	2399	PM782	2436	PP216

	2437	PP219	2474	PP393
	2438	PP224	2475	PP395
	2439	PP226	2476	PP398
	2440	PP227	2477	PP407
5	2441	PP23	2478	PP411
	2442	PP230	2479	PP413
	2443	PP233	2480	PP422
	2444	PP242	2481	PP428
	2445	PP243	2482	PP430
10	2446	PP244	2483	PP451
	2447	PP245	2484	PP454
	2448	PP255	2485	PP457
	2449	PP260	2486	PP46
	2450	PP261	2487	PP469
15	2451	PP267	2488	PP47
	2452	PP276	2489	PP482
	2453	PP292	2490	PP487
	2454	PP297	2491	PP5
	2455	PP299	2492	PP509
20	2456	PP303	2493	PP51
	2457	PP308	2494	PP517
	2458	PP314	2495	PP525
	2459	PP321	2496	PP54
	2460	PP325	2497	PP60
25	2461	PP330	2498	PP7
	2462	PP332	2499	PP71
	2463	PP337	2500	PP80
	2464	PP345		
	2465	PP35		
30	2466	PP356		
	2467	PP367		
	2468	PP379		
	2469	PP386		
	2470	PP387		
35	2471	PP389		
	2472	PP390		
	2473	PP392		

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified
5 in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "AA239" would have been isolated from a human fetal kidney library (i.e., selection "AA") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

10 As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors)
15 from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known
20 methods, for example, as described in H.U. Saragovi, *et al.*, Bio/Technology 10, 773-778 (1992) and in R.S. McDowell, *et al.*, J. Amer. Chem. Soc. 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be
25 fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

30 The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed full-length polynucleotide (preferably those deposited with ATCC) in a suitable

mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

5 The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated
10 regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or
15 other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately
20 labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide
25 sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene,
30 in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided.

The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* 15(7): 250-254; Lavarosky *et al.*, 1997, *Biochem. Mol. Med.* 62(1): 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* 14(9): 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* 90(16): 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614,396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention

can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25% (more preferably at least 50%, and
5 most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included
10 in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

15 In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* 266: 460-480; Altschul *et al.*, 1990, Basic local alignment
20 search tool, *Journal of Molecular Biology* 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version
25 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site <ftp://blast.wustl.edu/blast/executables>. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or
30 manner without the express written consent of the author; but the posted executables may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and

TBLASTX – the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and
5 BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be
10 changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

15 Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a “species homologue” is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60%
20 sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid
25 sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species
30 homologues are those isolated from certain mammalian species such as, for example, *Pan troglodytes*, *Gorilla gorilla*, *Pongo pygmaeus*, *Hylobates concolor*, *Macaca mulatta*, *Papio papio*, *Papio hamadryas*, *Cercopithecus aethiops*, *Cebus capucinus*, *Aotus trivirgatus*,

Sanguinus oedipus, *Microcebus murinus*, *Mus musculus*, *Rattus norvegicus*, *Cricetulus griseus*, *Felis catus*, *Mustela vison*, *Canis familiaris*, *Oryctolagus cuniculus*, *Bos taurus*, *Ovis aries*, *Sus scrofa*, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* 22: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* 25: 682-690; Lyons *et al.*, 1997, *Nature Genetics* 15: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* 13(10): 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp) [†]	Hybridization Temperature and Buffer [‡]	Wash Temperature and Buffer [‡]
5	A	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
	B	<50	T _B *; 1xSSC	T _B *; 1xSSC
	C	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
	D	<50	T _D *; 1xSSC	T _D *; 1xSSC
	E	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
	F	<50	T _F *; 1xSSC	T _F *; 1xSSC
10	G	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
	H	<50	T _H *; 4xSSC	T _H *; 4xSSC
	I	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
	J	<50	T _J *; 4xSSC	T _J *; 4xSSC
	K	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
	L	<50	T _L *; 2xSSC	T _L *; 2xSSC
15	M	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
	N	<50	T _N *; 6xSSC	T _N *; 6xSSC
	O	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
	P	<50	T _P *; 6xSSC	T _P *; 6xSSC
	Q	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
	R	<50	T _R *; 4xSSC	T _R *; 4xSSC

[†]: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

[‡]: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH₂PO₄, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

*T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(^{\circ}\text{C}) = 81.5 + 16.6(\log_{10}[\text{Na}^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[\text{Na}^+]$ is the concentration of sodium ions in the hybridization buffer ($[\text{Na}^+]$ for 1xSSC = 0.165 M).

- 5 Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

10 Preferably, each such hybridizing polynucleotide has a length that is at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 15 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2501, SEQ ID NO:2502, or SEQ ID NO:2503 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end. 20 Similarly, sequences such as SEQ ID NO:2504, SEQ ID NO:2505, or SEQ ID NO:2506 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2501 through SEQ ID NO:2506 25 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred 30 embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1 35

from nucleotide 25 to nucleotide 291, where the total number of nucleotides (N) in SEQ ID NO:1 is 316, and N-25 equals 291. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the
5 SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an
10 expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined
15 herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the
20 protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from *in vitro* culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

25 Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella*
30 *typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (*i.e.*, from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, *e.g.*, silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep
5 which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences,
10 by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

15 The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the
20 alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No.
25 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those
30 skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as probes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations.

- 5 Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D,
10 DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- Assays for T-cell or thymocyte proliferation include without limitation those
15 described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, *Immunologic studies in Humans*); Takai et al., *J. Immunol.* 137:3494-3500, 1986; Bertagnolli et al., *J. Immunol.* 145:1706-1712, 1990; Bertagnolli
20 et al., *Cellular Immunology* 133:327-341, 1991; Bertagnolli, et al., *J. Immunol.* 149:3778-3783, 1992; Bowman et al., *J. Immunol.* 152: 1756-1761, 1994.

- Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons,
25 Toronto. 1994; and Measurement of mouse and human Interferon γ , Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

- Assays for proliferation and differentiation of hematopoietic and
30 lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., *J. Exp. Med.* 173:1205-1211, 1991; Moreau et al., *Nature* 336:690-692, 1988; Greenberger et al., *Proc.*

- Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F.,
- 5 Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.
- 10 Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and
- 15 Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

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Immune Stimulating or Suppressing Activity

- A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various
- 25 immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune
- 30 disorders. More specifically, infectious diseases caused by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitus, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (e.g., B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal.

- 5 Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of
- 10 these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

- The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy
- 15 in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, *Science* 257:789-792 (1992) and Turka *et al.*, *Proc. Natl. Acad. Sci USA*, 89:11102-11105 (1992). In addition, murine models
- 20 of GVHD (see Paul ed., *Fundamental Immunology*, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

- Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate
- 25 activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to
- 30 inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythematosus in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia
5 gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an
10 existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

15 Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of
20 enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate,
25 T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one
30 peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

- 5 The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or
- 10 MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (e.g., a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a
- 15 peptide having the activity of a B lymphocyte antigen (e.g., B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote
- 20 presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- 25 Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc.
- 30 Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowman et al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype
 5 switching (which will identify, among others, proteins that modulate T-cell
 dependent antibody responses and that affect Th1/Th2 profiles) include, without
 limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and
 Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick,
 M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John
 10 Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others,
 proteins that generate predominantly Th1 and CTL responses) include, without
 limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan,
 A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing
 15 Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte
 Function 3.1-3.19; Chapter 7, *Immunologic studies in Humans*); Takai et al., J.
 Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli
 et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins
 20 expressed by dendritic cells that activate naive T-cells) include, without limitation,
 those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., *Journal of*
Experimental Medicine 173:549-559, 1991; Macatonia et al., *Journal of Immunology*
 154:5071-5079, 1995; Porgador et al., *Journal of Experimental Medicine* 182:255-260,
 1995; Nair et al., *Journal of Virology* 67:4062-4069, 1993; Huang et al., *Science*
 25 264:961-965, 1994; Macatonia et al., *Journal of Experimental Medicine* 169:1255-1264,
 1989; Bhardwaj et al., *Journal of Clinical Investigation* 94:797-807, 1994; and Inaba et
 al., *Journal of Experimental Medicine* 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others,
 proteins that prevent apoptosis after superantigen induction and proteins that
 30 regulate lymphocyte homeostasis) include, without limitation, those described in:
 Darzynkiewicz et al., *Cytometry* 13:795-808, 1992; Gorczyca et al., *Leukemia*
 7:659-670, 1993; Gorczyca et al., *Cancer Research* 53:1945-1951, 1993; Itoh et al., *Cell*
 66:233-243, 1991; Zacharchuk, *Journal of Immunology* 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. *Cellular Biology* 15:141-151, 1995; Keller et al., *Molecular and Cellular Biology* 13:473-486, 1993; McClanahan et al., *Blood* 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., *Proc. Natl. Acad. Sci. USA* 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., *Experimental Hematology* 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

5 A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family,
10 may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- β group, may be useful as
15 fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and
20 pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986;
25 Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic
30 activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

5 A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

10 The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce
15 the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al.
20 J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

Hemostatic and Thrombolytic Activity

25 A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for
30 dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

5

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their
10 ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are
15 also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be
20 measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static
25 conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

30 Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute
5 conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of
10 cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or
15 prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis),
20 by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including,
30 without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing
5 analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the
10 ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

15

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be
5 combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar
10 layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of
15 which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment,
20 healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

25 In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines,
30 lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 µg to about 100 mg (preferably about 0.1mg to about 10 mg, more preferably about 0.1 µg to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy.

- 5 Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

- 10 Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

<u>Sel.</u>	<u>Species</u>	<u>Stage</u>	<u>Tissue</u>	<u>Cell Type</u>	<u>Treatment</u>
AA	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AC	Human	Adult	Placenta	26yrs., 1 specimen	None
AD	Mouse	Fetal	Embryo	ES cells	LIF
AE	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AF	Mouse	Fetal	Brain	N/A	None
AG	Mouse	Fetal	Brain	N/A	None
AH	Mouse	Fetal	Thymus	N/A	None
AJ	Human	Adult	Testes	10-61yrs., pool of 11	None
AK	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AM	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AN	Mouse	Adult	Bone Marrow	Stromal cell line FCM-4	None
AO	Mouse	Adult	Thymus	N/A	None
AP	Human	Adult	Placenta	26yrs., 1 specimen	None
AQ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AR	Human	Adult	Retina	16-75yrs., pool of 76	None
AS	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
AT	Human	Adult	Blood	Lymphocytes+Dendritic Cells	MLR
AU	Human	Adult	Testes	10-61yrs., pool of 11	None
AV	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AW	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AX	Human	Adult	Testes	10-61yrs., pool of 11	None
AY	Human	Adult	Retina	16-75yrs., pool of 76	None
AZ	Human	Adult	Colon	Adenocarcinoma Caco2	None
BB	Human	N/A	Blood	Adult PBMC/TH1or2	TH1or2 driven response
BC	Mouse	Fetal	Embryo	ES cells	LIF
BD	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BG	Human	Adult	Brain	N/A	None
BH	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BI	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BJ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BL	Human	Adult	Testes	10-61yrs., pool of 11	None
BN	Human	Adult	Placenta	26yrs., 1 specimen	None
BO	Human	Adult	Retina	16-75yrs., pool of 76	None
BP	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None

BT	Human	Adult	Blood	PBMC	None
BV	Human	Adult	Brain	N/A	None
BZ	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
C	Human	Adult	Blood	PBMC	conA + PMA
CA	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
CC	Human	Adult	Brain	N/A	None
CJ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
CL	Human	Adult	Retina	16-75yrs., pool of 76	None
CR	Human	Adult	Testes	10-61yrs., pool of 11	None
D	Human	Adult	Blood	PBMC	conA + PMA
DD	Human	Adult	Testes	10-61yrs., pool of 11	None
DG	Human	Adult	Placenta	26yrs., 1 specimen	None
DH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DI	Human	Adult	Testes	10-61yrs., pool of 11	None
DL	Human	Adult	Brain	N/A	None
DO	Human	Adult	Testes	10-61yrs., pool of 11	None
DP	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
DU	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DY	Human	Adult	Brain	N/A	None
DZ	Human	Adult	Testes	Teratocarcinoma NCCIT	None
EF	Human	Adult	Liver	N/A	None
EK	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
EM	Human	Fetal	Kidney	N/A	None
EN	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FE	Human	Adult	Brain	N/A	None
FH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FQ	Human	Adult	Testes	10-61yrs., pool of 11	None
FT	Chicken	Fetal	Fetal Lung	Fetal Lung	N/A
FU	Chicken	Fetal	Limb Bud	Fetal St. 23 Limb Bud	N/A
FZ	Human	Adult	Placenta	26yrs., 1 specimen	None
G	Human	Adult	Blood	PBMC	conA + PMA
GA	Human	Adult	Testes	10-61yrs., pool of 11	None
GC	Human	Adult	Testes	10-61yrs., pool of 11	None
GE	Human	Adult	Brain	N/A	None
GJ	Mouse	Adult	Spleen	N/A	IL-12
GL	Mouse	Adult	Lymph Node	N/A	IL-12
GW	Chicken	26	Limb Bud	Fetal St.26 Limb Bud	N/A

GZ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
H	Human	Adult	Blood	PBMC	PHA+PMA+MLR
HB	Human	Fetal	Kidney	N/A	None
HE	Human	Adult	Testes	10-61yrs., pool of 11	None
HL	Human	Fetal	Kidney	N/A	None
HR	Human	Adult	Brain	N/A	None
HS	Human	Adult	Brain	N/A	None
HV	Human	Adult	Testes	10-61yrs., pool of 11	None
HX	Human	Adult	Brain	Hippocampus	None
IB	Human	Fetal	Carcinoma	NTD2-1	None
IE	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
IF	Human	Adult	Uterus	N/A	None
IJ	Human	Adult	Blood	PBMC	GCSF in vivo
IK	Human	Adult	Retina	Retinoblastoma Y79	None
IR	Human	Adult	Brain	Hippocampus	None
IS	Human	Adult	Trachea	N/A	None
IT	Human	Adult	Brain	Thalamus	None
IU	Human	Adult	Thyroid	N/A	None
IW	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
IX	Human	Adult	Brain	N/A	None
IY	Human	Adult	Brain	N/A	None
IZ	Human	Adult	Brain	N/A	None
J	Human	Adult	Blood	PBMC	PHA+PMA+MLR
JA	Human	Adult	Retina	16-75yrs., pool of 76	None
JB	Human	Adult	Retina	16-75yrs., pool of 76	None
JF	Human	Adult	Retina	16-75yrs., pool of 76	None
JK	Human	Fetal	Kidney	N/A	None
JL	Human	Fetal	Kidney	N/A	None
JM	Human	Adult	Testes	10-61yrs., pool of 11	None
JN	Human	Adult	Retina	16-75yrs., pool of 76	None
JQ	Human	Adult	Testes	10-61yrs., pool of 11	None
JS	Human	Adult	Testes	10-61yrs., pool of 11	None
JT	Human	Adult	Retina	16-75yrs., pool of 76	None
JW	Human	Adult	Testes	10-61yrs., pool of 11	None
JY	Human	Adult	Testes	10-61yrs., pool of 11	None
JZ	Human	Adult	Retina	16-75yrs., pool of 76	None
K	Mouse	Adult	Bone Marrow	Adult Stromal cell line FCM-4	None

KA	Human	Adult	Testes	10-61yrs., pool of 11	None
KB	Human	Adult	Retina	16-75yrs., pool of 76	None
KG	Human	Adult	Testes	10-61yrs., pool of 11	None
KH	Human	Adult	Testes	10-61yrs., pool of 11	None
KI	Human	Adult	Retina	Retinoblastoma Y79	None
KJ	Human	Fetal	Brain	N/A	None
KL	Human	Adult	Brain	N/A	None
KM	Human	Adult	Retina	Retinoblastoma Y79	None
KN	Human	Adult	Blood	PBMC	GCSF in vivo
KO	Human	Adult	Uterus	N/A	None
KP	Human	Adult	Retina	16-75yrs., pool of 76	None
KQ	Human	Adult	Retina	16-75yrs., pool of 76	None
KR	Human	Adult	Retina	16-75yrs., pool of 76	None
KS	Human	Adult	Retina	16-75yrs., pool of 76	None
KT	Human	Adult	Retina	16-75yrs., pool of 76	None
KU	Human	Adult	Retina	16-75yrs., pool of 76	None
KV	Human	Adult	Retina	16-75yrs., pool of 76	None
KW	Human	Adult	Retina	16-75yrs., pool of 76	None
KX	Human	Adult	Retina	16-75yrs., pool of 76	None
KY	Human	Adult	Retina	16-75yrs., pool of 76	None
KZ	Human	Adult	Retina	16-75yrs., pool of 76	None
L	Mouse	Adult	Thymus	N/A	None
LC	Human	Adult	Retina	16-75yrs., pool of 76	None
LE	Human	Adult	Retina	16-75yrs., pool of 76	None
LF	Human	Adult	Spinal Cord	N/A	None
LG	Human	Adult	Testes	N/A	None
LH	Human	Fetal	Liver	N/A	None
LI	Human	Adult	Brain	N/A	None
LJ	Human	Fetal	Carcinoma	NTD2-1	None
LK	Human	Fetal	Carcinoma	NTD2-1	None
LL	Human	Adult	Thyroid	N/A	None
LN	Human	Adult	Uterus	N/A	None
LO	Human	Adult	Thyroid	N/A	None
LP	Human	Adult	Blood	PBMC	GCSF in vivo
LR	Human	Adult	Lymph Node	N/A	None
LS	Human	Adult	Brain	Substantia Nigra	None
LT	Human	Adult	Retina	Retinoblastoma Y79	None

LU	Human	Adult	Retina	Retinoblastoma Y79	None
LV	Human	Adult	Thyroid	N/A	None
LW	Human	Fetal	Carcinoma	NTD2-1	None
LX	Human	Fetal	Kidney	N/A	None
LZ	Human	Adult	Uterus	N/A	None
M	Human	Adult	Neural	Glioblastoma line T98G	None
MA	Human	Fetal	Carcinoma	NTD2-1	None
MB	Human	Adult	Spinal Cord	N/A	None
MC	Human	Adult	Thyroid	N/A	None
MD	Human	Fetal	Kidney	N/A	None
ME	Human	Adult	Brain	Substantia Nigra	None
MF	Human	Fetal	Kidney	N/A	None
MG	Human	Adult	Brain	Hippocampus	None
MH	Human	Adult	Brain	Thalamus	None
MI	Human	Adult	Spinal Cord	N/A	None
MJ	Human	Adult	Lymph Node	N/A	None
MK	Human	Adult	Testes	N/A	None
ML	Human	Adult	Brain	Caudate Nucleus	None
MM	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MN	Human	Adult	Brain	Hippocampus	None
MP	Human	Adult	Testes	N/A	None
MQ	Human	Adult	Testes	N/A	None
MR	Human	Adult	Testes	N/A	None
MS	Human	Adult	Testes	N/A	None
MT	Human	Adult	Testes	N/A	None
MU	Human	Adult	Testes	N/A	None
MX	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MY	Human	Fetal	Brain	N/A	None
MZ	Human	Adult	Spinal Cord	N/A	None
N	Rat	Fetal	Pancreas	N/A	None
NA	Human	Adult	Brain	Corpus Callosum	None
NB	Human	Adult	Spinal Cord	N/A	None
NC	Human	Adult	Prostate	N/A	None
ND	Human	Adult	Prostate	N/A	None
NE	Human	Adult	Brain	Hippocampus	None
NF	Human	Adult	Brain	Substantia Nigra	None
NG	Human	Adult	Brain	Hippocampus	None

NH	Human	Adult	Brain	Thalamus	None
NHAB	Chicken	34	Limb Bud	Fetal St.34 Limb Bud	N/A
NHAE	Mouse	Adult	Tumor	N/A	IL-12
NHAG	Mouse	Adult	Bone Marrow	Dendritic Cells	LPS/gamma IFN
NHAN	Mouse	Adult	Tumor	N/A	IL-12
NHAW	Mouse	Adult	Bone Marrow	Dendritic Cells	Resting
NI	Human	Adult	Thyroid	N/A	None
NJ	Human	Adult	Pineal Gland	N/A	None
NK	Human	Adult	Pineal Gland	N/A	None
NL	Human	Fetal	Brain	N/A	None
NM	Human	Adult	Blood	Erythroleukemia TF-1	None
NN	Human	Adult	Kidney	293 embryonal carcinoma line	None
NO	Human	Adult	Brain	Substantia Nigra	None
NP	Human	Adult	Kidney	293 embryonal carcinoma line	None
NQ	Human	Adult	Blood	Erythroleukemia TF-1	None
NR	Human	Adult	Bone	RD-ES	None
NS	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
NT	Human	Adult	Brain	Corpus Callosum	None
NU	Human	Adult	Brain	Caudate Nucleus	None
NV	Human	Adult	Brain	Thalamus	None
NW	Human	Adult	Brain	Corpus Callosum	None
NX	Human	Adult	Bone	RD-ES	None
NY	Human	Adult	Brain	Substantia Nigra	None
NZ	Human	Adult	Blood	Erythroleukemia TF-1	None
O	Human	Adult	Blood	Dendritic Cells	None
P	Mouse	Fetal	Embryo	ES cell embryoid bodies	6 days post LIF
PA	Human	Adult	Bone	RD-ES	None
PB	Human	Adult	Kidney	N/A	None
PC	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
PD	Human	Fetal	Kidney	N/A	None
PE	Human	Adult	Blood	Chronic Myelogenous Leukemia K562	None
PF	Human	Adult	Thyroid	N/A	None
PG	Human	Adult	Thyroid	N/A	None
PH	Human	Adult	Colon	Adenocarcinoma Caco2	None
PI	Human	Adult	Thyroid	N/A	None
PJ	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
PK	Human	Fetal	Kidney	293 cell line	None

PL	Human	Fetal	Kidney	293 cell line	None
PM	Human	Fetal	Kidney	293 cell line	None
PO	Human	Adult	Placenta	26yrs., 1 specimen	None
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None

Table 3 Cell Type and Treatment Key:

conA: concanavalin A

GCSF: granulocyte-colony stimulating factor

INF: interferon

LIF: leukemia inhibitory factor

days post LIF: cells harvested number of days shown after LIF removal

LPS: lipopolysaccharide

MLR: mixed lymphocyte reaction

PBMC: peripheral blood mononuclear cells

PHA: phytohemagglutinin

PMA: phorbol myristate acetate

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ

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or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115,

SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46,

SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ

ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367,

SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.
6. An isolated protein encoded by an isolated polynucleotide of claim 2.

7. An isolated protein encoded by an isolated polynucleotide of claim 3.
8. An isolated protein encoded by an isolated polynucleotide of claim 4.

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<110> Jacobs, Kenneth
 McCoy, John M.
 LaVallie, Edward R.
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 Evans, Cheryl
 Merberg, David
 Treacy, Maurice
 Bowman, Michael R.
 Genetics Institute, Inc.

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 aacacaataa ggaagagaga ggagaaaaag acagtcaaaa caaaaactct ggggcttccc 180
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atttttnttt tttgagacag ggtctcactc ttttgcccag ggtggagtgc agtggcatga 240
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tgcaccagga tctctttatt ttgtacttag gctttgcttg ctccctcttt gctttagttt 180
catcatctgt gaaacaaagg ggttaggtta gaataagaaa tttccaaaga tctttctact 240
tctcacagca cgtgggtgctg tgtcgaggta acgtccctta catacctcat gaagttagtg 300
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cctctgcttc ccaggttcta gcaattctcc cgcctcagcc tcccaagtag ctgagaccac 240
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attttacttt acttattctt ttgagacagg ttctcgact ccagcctagg caacagagtg 180
agactccgtc ccaatcagtc aatcaatcaa tcaatcaata ccacagcggg gaaaatcttt 240
acaacttttg gttaggtaat gatttcttag gtaggacaca caaaacactc gag 293

```

<210> 16

<211> 318

<212> DNA

<213> Homo sapiens

<400> 16

```

gaattcggcc ttcattggcct agacattaaa ggagaaatag acaaactctac aactatagtt 60
ggagacttca aagtaccttt ttcagtaatc aatagaccag ttagaacacc tcagccaaaa 120
atagcagaat ataaattatt tttgagctct cacagaactt tgctgagata cattataacc 180
tgggccataa aacaaactc aaccaattaa tacagttgaa accagagtgt gctctctgac 240
cacagtagaa tcaaaactatt aattagtaat ataataatga aaatctccac actcttaaaa 300
ataaacaaca tactcgag 318

```

<210> 17

<211> 314

<212> DNA

<213> Homo sapiens

<400> 17

```

gaattcggcc ttcattggcct acccgccctcg gcctcccaaa gtgctgggat cacaggcatg 60
agccaccatg cccggtcttt acttttaaat ttatctatct ttatactata gactatttgt 120
aaataccatt aatttaattt cagttgggtat tttatgacag ctgtgttggt aagcactgac 180
cctgtcaagt tcgtactctt tctaccttag tgtgagtcac ttaatttaag gtaggattga 240
ataattgggc tatataaaat ttggtttctt agaacaatac attggttaatt atgaagattt 300
gcaggatact cgag 314

```

<210> 18

<211> 534

<212> DNA

<213> Homo sapiens

<400> 18

```

gaattcggcc ttcattggcct agtctgttca ccatcagtaa cttctactaa atgttcacta 60
atttttaaca accttgacac tagagagtga gatttaagtt aactgttttt gttttagaat 120
tctgtaaatg ttaaatagaa gagaggcatg aaatcatttc tgataaaaat agaagttaaa 180
tctgtgttaa aggggtttgt ggcccccttc tccctagctc tgtctctcag ctgaataggt 240
tgtgtcaggg agtgacaacg cagtgggtgt ttggtgctat ctgtgttgag tgaccggcaa 300
aagaccacaa aaggaaatct ttagtttccc ctccaagtct tgttctttac atgagagcat 360
aggaagcctc cagaagactt gcatgatcct agtattgagt cctcttctat gcatctatca 420
aagaaaatga gagaatttca gaggggctgg gattatttat ttatttattt atttatttta 480
gagatgggat tttgccatgt tgcccaggcc attcttgaac cccaatact cgag 534

```

<210> 19

<211> 315

<212> DNA

<213> Homo sapiens

<400> 19

```

gaattcggcc ttcattggcct acctttctaa tttttctcaa aagctaaaat ccctaaaagc 60
tgaattctgg gggaaaaaaa ttatacacag acaaaaactca catagggttg tttgattatg 120
aaactaagta ttattttaat ttcagggttt tttgtttttt gttttttttg tttctgtttt 180
tgttctctgt tttttgagaa ggagtttctc tcttggtgcc caggctggag tgcagtggcg 240
tggtctcggc tcaactgcaac ctccgcctcc caggttcaag taaatctcct acctcagcct 300
cccaagaaac tcgag 315

```

<210> 20

<211> 491

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (114)

<400> 20

```

gaattcggcc ttcattggcct agggtaatac agtgaacca ggagcggagg ttgcagttag 60
tcgagatcgc accactgcac tccggcctgg ggcacagatg gagactccgt ctcncaaaaa 120
aaaaaaaaaa aaaagagatg agtgagggtt cctatgtta ccaaggctgg tcttgaactc 180
ctggcctcag gcagtcctcc cgctcggcc tctcaaaaag cgctgggatt acaggcatga 240
gtaccaggc ctggccaagt cttttgtttt tcttctcttc cttcttctct ctttctctct 300
tctttctttt ttaaaaaata gtatttagtt ttccaaacta agaccaagaa ctcttgctct 360
atataattat ttactatttc ctccatttaa gggtatatag ttttctcttg aaaaaatttt 420
gtcattatca agttaatta atacatctgt attttatgtt cttattacta ttacaactgg 480
tgtctctcga g 491

```

<210> 21

<211> 304

<212> DNA

<213> Mus musculus

<400> 21

```

gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcacctttc tctccccac actttttctg aggggtgacag ccagagaacc 120
agtctttgta gagaaaaacc cttttgtaca gcatatagta gaatctcaat acatggaatt 180
aagagaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag                                         304

```

<210> 22

<211> 287

<212> DNA

<213> Mus musculus

<400> 22

```

gaattcggcc aaagaggcct attgaatcct cctctgccac gtcgatcacc tccatagttt 60
ccccccatat gagagcctcc tggccccct cctgggccat ctggcttagg tgccttacac 120
tggttgcatt cattttctca agagaagttc atgtttctcac atgtaggatt aggacacttc 180
cagctctccag ctggttgctg tctccacct ccaccacct cactggggaa tctcccccg 240
ccaccaccac cactgccacc tctccatag cctccacggc actcgag          287

```

<210> 23

<211> 303

<212> DNA

<213> Mus musculus

<400> 23

```

gaattcggcc aaagaggcct agacgtccag tagaactctg aatacaagta tactggatcc 60
aatgtcactc tgtttctgtg acaaacactg tcacaaaaag caacttagga gacaaaaggc 120
tttatttgac tcacattccc aggccattct tttgtttgt ttgtttgggt tttttgttg 180
ttgtttgttg ttttccagga tagtcagggc tacacagaga aacctgtct tgaaaaacta 240
ccccccccc agaaaaaaga gatgcaaac caaacaggaa aatgtacata cagcaggctc 300
gag                                         303

```

<210> 24

<211> 155

<212> DNA

<213> Mus musculus

<400> 24

```

gaattcggct aaagaggcct acgattgaat tctagacctg cctcgagcca cactcacctc 60
acacacacct tatgagcacc ccacttgctc tccactcctc ctactcgtc ctctcacctt 120
tctcttgccc cagtctttta ttgatactcc tcgag          155

```

<210> 25

<211> 401

<212> DNA

<213> Mus musculus

<400> 25

```

gaattcggcc ttcattggcct atccagtatt catgccttat ccagcacacc catggccctt 60
gccattgaa gctggaagta acttttacc a gttcctttg agagccccc gggctataag 120
ctcccacttt agatcacagc agaaggctga gtggttcttt ccattcccc atcagaatac 180
aagtgttcac agcagaggtc aaaactttgc tattaaatac ctccaaccct ggagatttta 240
ttcaaggga agattcaca gatgttcagc aactcctcag cagtatcacc cgaatggacc 300
atttgggaga tcacagagac aggtttctcc tgtacagacc catcctaaga gcaggcagat 360
gtccagaact cttgagaggt ctgggacagt ggtctctcga g          401

```

<210> 26
 <211> 495
 <212> DNA
 <213> Mus musculus

<400> 26
 gaattcggct tcatggccta cggactgttg cttcccagag gaattcacag acaccagact 60
 tgcttgcaag tcatcatgac catgagacac tgctggacag caggccccag ttcttggttg 120
 gtctgtcttt tgtatgtcca tgtcattttg gccagagcca catctgcacc tcagacaact 180
 gccactgtct taactggaag ctcaaaagac ccatgtctct cctggctctc agcagtccca 240
 agtaagcagt acccagcact ggatgtgata tggccagaaa aagaagtgcc actgaatgga 300
 actctgacct tgtctgtac tgctgcagc cgcttcccct acttcagcat cctctactgg 360
 ctgggcaatg gttccttcat tgagcacctc ccaggccggc tgaaggaggg ccacacaagt 420
 cgcgagcaca ggaacacaag cacctggctg cacagggcct tgggtgctgga acaactgagc 480
 cccacccaac tcgag 495

<210> 27
 <211> 321
 <212> DNA
 <213> Mus musculus

<400> 27
 gaattcggcc ttcattggcct agattgaaat gcgcagtggt tttgtttttt gttttgtttt 60
 gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagt 120
 cctccgtcac aggttttgat ccagccattt gatgtaacta ttcctagtcc ggattccac 180
 ggagaagttg gtcggccagc ttgtaaaaat catacaacca tgggaagcgt cctcaaagt 240
 gtccaaggtc acgttcacac ccgcactctc caagcgcttg gcgtacatga tcccatcgtc 300
 ccgcaggacg tcgtgctcga g 321

<210> 28
 <211> 343
 <212> DNA
 <213> Mus musculus

<400> 28
 gaattcggcc ttcattggcct acaccacgct aagtgcacaa aaattcctgt ggattctcct 60
 cgtcctgctt tttgaacagt atgtcactaa aacagtgtcg gtggctgctt atggagaaaa 120
 ggatgctatt ttagaggcag atactgagt ctggatttca gtctgttgtg aattcagtgt 180
 ccagcatcag gtccagagct tgatgcata cctccactac ctagaaaagc tgccagagga 240
 aaaggaagaa gccacctcca agacagtatc tactaagagt gaagtacaag atgaaatgtt 300
 gccagttttt aagggtggacg ctcacacaaa caagcagctc gag 343

<210> 29
 <211> 504
 <212> DNA
 <213> Mus musculus

<400> 29
 gaattcggct tcatagccta acctaaacag gctctcctct cagttatcaa ctgtggacac 60
 ttgtgcgac tctgatggct gtcccgcaag aaatctatga gtttttccct tatggggact 120
 ttggccgcc gctgcctgct tctcattgcc ctgtggggcc aggaggcaaa tgcgctgccc 180
 gtcaacaccc ggtgcaagct tgaggtgtcc aacttccagc agccatacat cgtcaaccgc 240
 acctttatgc tggccaagga gccagcctt gcagataaca acacagatgt ccggtcctc 300
 ggggagaaac tgttccgagg agtcagtgt aaggatcact gctacctgat gaagcagggtg 360
 ctcaacttca ccctggaaga cgtctgtctc cccagtcag acaggttcca gccctacatg 420
 caggaggtgg tgcctttcct gaccaaaact agcaatcagc tcagctcctg tcagatcagc 480
 ggtgacgacc agaacaaact cgag 504

<210> 30
 <211> 428

<212> DNA

<213> Mus musculus

<400> 30

```

gaattcggcc ttcattggcct agtgaaatca ctggttaagga gaaaacatct gaaatggaat 60
tcaagtatct ggtcttcatt gtgctttgtc aatacctgga caatacgttt ttctcagaga 120
cagaagcaat tacaacagag cagcaatcac tgtctacttt aatcacaccg tcgttatatg 180
ttacaactga ttctcaaaac acagcagggg atgctttgag tcagacaaca agattcaaga 240
acattttctt tggacagcaa gcatcacctg cccaaatcac tcctgaacaa gcaacaccag 300
ctgttttatgt ctcttcaagc ccacttactt ataacattac cagacaagca gaatcagcgg 360
tcaacaactc cttgcctcaa acatcaccat ctgggttcac tttgaccaat cagccatcac 420
ttctcgag                                     428

```

<210> 31

<211> 360

<212> DNA

<213> Mus musculus

<400> 31

```

gaattcggcc aaagaggcct accttaaagc cgtatactta tgaatttaaa gtggaaaatt 60
tttttggtgg ccctggcccc cttgccagat tccagctggc cgtcagtgct cgcgtgtctc 120
tctgaagagg ctctgcggtt ctggtccctg tgcttgagct ccagggtgccg ccagacatta 180
tacaacgtga aggttgagat ctttccccct tcgggaatgg agtattgcag aacaggctcc 240
ctctgctccc tggagggttt gatcacgagg ctctcagacc tcttgagggt ggataaagat 300
gaagcactga ctgaatctga tgagcatttt tcgacaaagc ttatgtatga agttgtcgag 360

```

<210> 32

<211> 343

<212> DNA

<213> Mus musculus

<400> 32

```

gaattcggcc ttcattggcct agacttaagg ttagaactac gacgactacg agaaaaacat 60
cttaaagaga ttcaggacct gcagagtcgc cagaagcatg aaattgaatc tttgtatact 120
aaactgggca aggttcccc tctgttcatt attccccag ctgctcctct gtcggggaga 180
agaaggagac cactaaaaag caaaggcagc aagtctagtc gcagcagctc attgggcaat 240
aaaagcccac agctttcagg caacctgtct ggtcagagtg gaacttcagt cttacacccc 300
caacagaccc tccatcccg caggaaacacc cccgactctc gag                                     343

```

<210> 33

<211> 599

<212> DNA

<213> Mus musculus

<400> 33

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gaattcggcc ttcattggcct actttcattg tgaaatcact ggtaaggaga aaacatctga 60
aatggaatc aagtatctgg tcttcattgt gcttgggtcaa tacctggaca atacgttttt 120
ctcagagaca gaagcaatta caacagagca gcaatcactg tctactttaa tcacaccgtc 180
gttatatggtt acaactgatt ctcaaaacac agcagggaat gctttgagtc agacaacaag 240
attcaagaac atttctctctg gacagcaagc atcacctgcc caaatcactc ctgaacaagc 300
aacaccagct gtttatgtct cttcaagccc acttacttat aacattacca gacaagcaga 360
atcagcggtc aacaactcct tgccctcaaac atcaccatct gggttcactt tgaccaatca 420
gccatcacct tctacctata attctactgg acaaccacca aaacatcttg tctatacttc 480
cacacaacag ccaccatcac ctgctcctac ctcttctggg aaaaccagaa gtagagtcta 540
ctcataatca gccacaaaa tcaacaccaa ctatttattt acaaaggagc ggactcgag 599

```

<210> 34

<211> 363

<212> DNA

<213> Mus musculus

<400> 34
 gaattcggcc ttcattggcct acgttgcctt cagaggattt ggctcatctt ctggatatgg 60
 tttttctacag cgaatgaaaa gagegtgtta tccctttact tgtaaacatt atgcattatg 120
 ttgtacccta cctccgaaat cacagtgcac ataatgcccc tagttaccga gcctgtgtcc 180
 agctgctcag tagtcttagt gggatcagc atacaaggag agcctggaaa aaagaagcct 240
 ttgacctttt tatggatccc agcttcttcc agatggatgc ttctgtgtt agtcactgga 300
 gagcaatcat ggacaacctg atgacacatg ataagacaac cttcagagat ttgatgactc 360
 gag 363

<210> 35
 <211> 139
 <212> DNA
 <213> Mus musculus

<400> 35
 gatgcaccag ctcttgggcc tcaatctcct ctctctgcta tctcagaacc gagggtgcta 60
 gttccacaca gaattagaac gattacctgc caaggacatc cagaccaatg tctacatcaa 120
 acacctgtt tccctcgag 139

<210> 36
 <211> 284
 <212> DNA
 <213> Mus musculus

<400> 36
 gaattcggcc ttcattggcct aggcgcctct atttctgttc caagtgtttg caggttttct 60
 tggttttttt tcttatttct tcaaccagct gtttgatgtg gtcctccatg aattctattt 120
 tctcattctt cggggcatgg gctttctgta gctcactat cctctcaatc agcatggctt 180
 tgtccacttc tgggaagtgt tccacagcca ccgaggagct ggtattctct ggagatcggt 240
 cttcagcact gattcgagca ttaagtgacc ctgatgaact cgag 284

<210> 37
 <211> 494
 <212> DNA
 <213> Mus musculus

<400> 37
 gaattcggcc ttcattggcct aagtttattg aggtattaaa tttactttgc agtggatatt 60
 ttttaataata cacctgagct gacgtgtttt taactgagtt tttttgtttt ttttttttaa 120
 tgcactcat ttggattgct cttttaataa actcttcttg tataggaatg aaatcaccag 180
 gagaacagct ggtgtgcttg ccaccagtgg aggcctttcc taatgatccc cgggtcatca 240
 atagagaaaag aagctgtgat taccagttcc caccctctcc gctacagac accctaaaag 300
 ggactaccga ggaggacact gtaacagcag gtcaggcgat ggcagtggaa gagcagtgtg 360
 tgccagcagc agagcttctt agagtgcgc agattacaga aaatacagtg ttaggagagt 420
 tccatctttt ctctaggaag gtagaagaga ttttgaagga gaagaatgtt tcatatgtta 480
 gtgcaaatct cgag 494

<210> 38
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 38
 gaattcggcc ttcattggcct actcctatga cagcatctga aatatataat aattctctcc 60
 ttttagaata tctctgttgg ctcaaatagc tttttctaaa ttttctgtct aatcgtttaa 120
 acttgtcagt tgtttttatt aaacttatgt tccatgtaca gtgctgccag gttcctgcc 180
 aggagtcagt cagaggagca tggcttttcc ttctgggttc attagctttg ctgttagcca 240
 acaccaacac tcatttcacg atggtttttg tcttgtcca agtggtcccc tgtgccccag 300
 catcacaagc actcgag 317

<210> 39

<211> 362

<212> DNA

<213> Mus musculus

<400> 39

```

gaattcggcc ttcattggcct aaggaagtaa caattttgcc ttttctttgt gttcttttaa 60
ctgcttatta gaatttcata tctaatttgt ctctgatttt ggaaaagctt ataaacaaag 120
atttatcaga aaaaagtctc agaatttgtg aaaaaaata gtaaaagaaa aggggataga 180
gacaaatgat tctcttttta ttaatttatt tattcacttt atatcctgat cgaagccctc 240
ctcctccag tccactccc cctagtccat ctctccagta ctctctgct tctcagagaa 300
ggggaagtct cctaggggta ccagtatgcc cagcagggg atccaaaggc agtatactcg 360
ag 362

```

<210> 40

<211> 318

<212> DNA

<213> Mus musculus

<400> 40

```

gaattcggcc ttcattggcct aaagaaacct ggataacatt gtcttgcaac agcctagtaa 60
taggtagcaa aaggaaatct aagaaagatg tttatacaat ctttgatgca gaggtggaga 120
gcacaagtcc aaagtcggaa caggattcgg gaattctgga tgtggaagac gaggaagatg 180
atgaagaggt acctggggct caagacttgg tggatttctc tcctgtgtat cgggtgtctac 240
acatatattc tgtcctgggt gccctgaaa catttgagaa ttactaccga aaacagaggc 300
gaaaacaggc cctcagag 318

```

<210> 41

<211> 556

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (151)..(152)

<400> 41

```

gaattcggcc aaagaggcct agaagaagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa nnaaggaacc attttgacag caagaccttc 180
tgtgaagttc taaaaagggg aaggatctgc gtgtgtctgg tcatttaaac acatattcag 240
ttctgtgtac tctagagttt gacggctctgt atatttttca ggcagccaag ccaagttatt 300
gtatcatttg ggtgtagaaa ctgtgttttc ctgtgtatat gtgatcaata tccaagggtc 360
taaaagttag cttgcttgta ttggaattta aaacaacaac aacaaaaaga aatatgtcac 420
tgtgttttca atttgtattt tcacaactgc ttccttttct atggctcctg ttcatatctc 480
acagtgtgta gggatcatag agaacacgca gagccgcaag ctgtctgtca catccagctt 540
ccgcagttca gtcgag 556

```

<210> 42

<211> 304

<212> DNA

<213> Mus musculus

<400> 42

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gaattcggcc ttcattggcct aggttttctg ggctactacg atggcgatga gtttcgagtg 60
gccgtggcag taccgcttcc cgccttctt tacgttacag ccgaacgtgg acaccggcga 120
gaagcagctg gccgcttgg gctctctggg tctgtccttc tgccgcctgc acaaacagtc 180
cagcatgacg gtgatggaag cccaggagag cccgcttttc aacaacgtca agctacagcg 240
gaaacttcct gtggagtcaa ttcagattgt attagaagaa ctgagaaaga aagggaacct 300
cgag 304

```

<210> 43
 <211> 323
 <212> DNA
 <213> Mus musculus

<400> 43
 gaattcggcc ttcattggcct agtccttcct ctgcagacca tcgctgggcc ggctgccctc 60
 ccctcctctc cctctctctt ggggttgggg cagtgggaag gaggggacct cccatgcccc 120
 aggatcccca gcgccagggg acagtgcccc gggggcctgg ggtcccggag ggagtcctgg 180
 gatctgaagg gcattcgatt gtgagcggcc aggcagaggg gcagaggcgg ctgtacacag 240
 gctcagaaag gaaagacttg atgtcctcct gagggcagca gaggagcgcc gagccgcctg 300
 tcacttcccc ctccacactc gag 323

<210> 44
 <211> 322
 <212> DNA
 <213> Mus musculus

<400> 44
 gaattcggcc ttcattggcct agattgaaat gcgcagtggt tttgtttttt gttttgtttt 60
 gttttgtttt gttttttcca aagcaaaccg aggtcaagag cttcatgcgt ctgaggagtt 120
 tcctccgtca cagggtttga tccagccatt tgaftgaact attcctagtc cggattccca 180
 cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
 ggtecaaggt cacgttcaca cccgcactct ccaagcgctt ggctgtacatg atcccatcgt 300
 cccgcaggac gtcgtgctcg ag 322

<210> 45
 <211> 451
 <212> DNA
 <213> Mus musculus

<400> 45
 gaattcggcc ttcattggcct acatgetctc actagetctc ctctcagcc ttcttctcct 60
 ctgtgtctct gattctaggg cagaacaac tgtgaccag tctccagcat cctgtccgt 120
 ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
 gaactggtac cagcagaagc cagggaacc tcctaagctc cttatttcag aaggcaatac 240
 tcttcgtcct ggagtcccat cccgattctc cagcagtggt tatggcacag attttgtttt 300
 tacaattgaa aacacgctct cagaagatgt tgcagattac tactgtttgc aaagtataa 360
 catgccgtac acgttcggag gggggaccaa gctggaaata aaacgggctg atgctgcacc 420
 aactgtatcc atcttccac caccactcga g 451

<210> 46
 <211> 350
 <212> DNA
 <213> Mus musculus

<400> 46
 gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
 tctgtctgct ggcgtgggtc gctgccagcc aggcggagcc cctgcacttc aaggactgcg 120
 gctctaaggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
 agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcggc actcagtcct 240
 agaacagcac ggccttggtc cacggcatcc tggaaaggat ccgggtcccc ttccctattc 300
 ctgagcctga cgtttgtaag agtggaatca actgccccat caatgtcgag 350

<210> 47
 <211> 449
 <212> DNA
 <213> Mus musculus

<400> 47

```

gcttcattggc ctacaaagac aaaatggatt ttcaagtgc gattttcagc ttcctgctaa 60
tcagtgtcttc agtcataatg tccagaggac aaattgttct ctcccagctc ccagcaatcc 120
tgtctgcctc tccaggggag aagggtcaca tgacttgagc ggccagctca agtgtaagtt 180
acatgcactg gtaccagcag aagccaggat cctcccccac accctggatt tatgccacat 240
ccaacctggc ttctggagtc cctgctcgct tcagtggcag tgggtctggg acctcttact 300
ctctcacaat cagcagagtg gaggtctgaag atgctgccac ttattactgc cagcagtggg 360
gtagtaaccc gtggacgttc ggtggaggca ccaagctgga aatcaaacgg gctgatgctg 420
caccaactgt atccatcttc ccactcgag 449

```

<210> 48

<211> 555

<212> DNA

<213> Mus musculus

<400> 48

```

gaattcaagt atctggctct cattgtgctt tgtcaatacc tggacaatac gtttttctca 60
gagacagaag caattacaac agagcagcaa tcactgtcta ctttaatac accgtcgta 120
tatgttacia ctgattctca aaacacagca ggaatgctt tgagtcagac aacaagattc 180
aagaacattt cttctggaca gcaagcatca cctgcccaca tcactcctga acaagcaaca 240
ccagctgttt atgtctcttc aacccactt actataaca ttaccagaca agcagaatca 300
gcggtcaaca actccttgcc tcaaacatca ccactctggg tcactttgac caatcagcca 360
tcaccttcta cctataattc tactggacaa ccacaaaac atcttgtcta tacttccaca 420
caacagccac catcacctgc tctacctct tctggaaaac cagaagtaga gtctactcat 480
aatcagccca caaatcaac accaactatt tatttaciaa gggacacacc accaccacca 540
ccacccaac tcgag 555

```

<210> 49

<211> 328

<212> DNA

<213> Mus musculus

<400> 49

```

gaattcggcc ttcattggcct acatgetctc actagctcct ctctcagcc ttcttctcct 60
ctgtgtctct gattctaggg cagaacaac tgtgaccag tctccagcat ccctgtccgt 120
ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
tcttcgtcct ggagtcccat cccgattctc cagcagtggc tatggcacag attttgtttt 300
tacaattgaa aacacgtctc ctctcgag 328

```

<210> 50

<211> 304

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (143)

<400> 50

```

gactctaaag atgaaatgta aattcctggg tagcttcttt ctgctcttca gcctttccgg 60
caaaggggag gactgcagag acaatgagac catctggggt gtcttgggtc atggcatcac 120
cctgaacatc cccaactttc aantgactga tgatattgat gaggtgcat gggtaaggag 180
gggcaccctg gtcgcagagt ttaaaaggaa gaagccacct tttttgatat cagaaacgta 240
tgaggtctta gcaaacggat ccctgaagat aaagaagccg atgatgagaa acgacatcct 300
cgag 304

```

<210> 51

<211> 436

<212> DNA

<213> Mus musculus

<400> 51

```

gaattcggcc ttcatgccta aaaataattg gtccctgcct gagctagtgc acgccgtggt 60
cctcttggct cactatcacg ctttggccag ctttggtttt ggtagtggca tcaatccaga 120
gagagaccca ggaatcgcca atgggttcag actaatctct gtgagcagct tctgtgtgtg 180
tgacctggcc aatgacaaca gcatcgagaa cacctccctg gcgggcagca actttgggat 240
tgtggattcc ctaggcgagc tgggaagcctt aatggaaaagg atgaaaaggc ttcaggaaga 300
caggaagat gacgagacca ctcggaaga aatgaccacg cgttttgaga aggaaaagaa 360
agaaagtctc tttgtggtcc ctggagaaac tttacatgcy tttcctcact cagattttga 420
agatgatgtt ctcgag                                     436

```

<210> 52

<211> 285

<212> DNA

<213> Mus musculus

<400> 52

```

gaattcggcc ttcatggcct acggctagga agggcataga tttttagaga tgggctagtt 60
gggttccgaa cctggctgca taattttatc ggggtggaat ttaggcggat cgcattttta 120
atgcctgaaa atgggcacag cagtgtgtg taacattgaa tctgagatgt cacctaggga 180
aagacacatt ccgatttgaa agatagtcca taggaaagaa aacaagccat ggtcatgggc 240
aagtgcctcc ccgaagagt tatgttaaag atgaaatggc tcgag                                     285

```

<210> 53

<211> 448

<212> DNA

<213> Mus musculus

<400> 53

```

gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaata 60
gctcttagtt tctagagtct ttgggtttcg atgggttctt aaaactctac cttgtgaagt 120
taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgtttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agcttttagt gactctctga cttaaaagcc ctttacctgg atggaaacca 420
acttctggag ataccacagg gactcgag                                     448

```

<210> 54

<211> 449

<212> DNA

<213> Mus musculus

<400> 54

```

gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaata 60
gctcttagtt tctagagtct ttgggtttcg atgggttctt aaaactctac cttgtgaagt 120
taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgtttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agctttaaagt ggactctctg acttaaaagc cctttacctg gatggaaacc 420
aacttctgga gataccacag ggactcgag                                     449

```

<210> 55

<211> 476

<212> DNA

<213> Mus musculus

<400> 55

```

gaattcggcc ttcatggcct agccggggcc ttcatgagac tctccagctg aagccatctc 60
ctgcttggga gccagtgtc cattttctgt cgtggcatca tcatcacagt gcctcagaga 120

```

gtggagttcc caggatgccc acttgagctg gttctctaca gcatccagct cagaactcgg 180
 taatccctga gcatcttctt gagatgttat ctcttctaca agcacttccc gtttctgccc 240
 acggagagaa accggctgac cagggctcatc aagctcactc tccaagtcct ctagaacagc 300
 cactgcctcc tctccattct ctgggtgatg ctctcgaacc caagtctgta gtccttggg 360
 taggatggca acaaaactgct ccaaaactac cagctccagt atctgctcct ttgtgtgtgt 420
 ctctggtctg agccacaggc ggcaaagtgc tcggagctgg ctcaccgcct ctcgag 476

<210> 56

<211> 393

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (57) .. (58)

<220>

<221> unsure

<222> (226)

<400> 56

gaattcggcc ttcattggcct atgcagattt aatggaacta gggaaatcct tatccanntc 60
 caaaacctca ttaacttctc taagggaggc tcacccttcg aaatcagcgg gaacaagact 120
 tccaatctct gcaacaggat ggactgtgta aacctctgga gaaaagggtgc tgcacctttg 180
 tggataactt aaagcatgcg agggagttat tgcctaaggt gaggnacgt ctagaagaca 240
 ggccaaaggg aaatgggaca gggtcagcct gtgtggatta cagttattgc aactctgtct 300
 ggattcttgg gcctggtcat actcattgtg atatgcaagc tctatgttgt taacccccctg 360
 atggattcat caaggaccag gtcaccactc gag 393

<210> 57

<211> 484

<212> DNA

<213> Mus musculus

<400> 57

gaattcggcc ttcattggcct ataggccatg aaggccggcc ttcattggcct aagtctctcc 60
 ccctttactc cctccacct tttccagac ctgcctcctc cttagaaaag aacagtcctc 120
 cctcctgggc acatgaatgg aatatgctat aacaagctat agtaagacca ggcacacatt 180
 ctacatcaa ggctagacca ggaggcaaag cattccaaag gcaccagatg actcagggac 240
 agcctgtgct cccactgtta gcacctaca agaaccacaa gctatacaac cgtaacatac 300
 atgcagtgtc cagacacata taggtccacc atcacaagaa catggccccc agaatcatct 360
 gaggcacatt ttacctaaac gttggtacag atgacttggg cagtgtcttt tggtagatat 420
 tgaagacaca aagatgcatg ctctctccc acccttaccg attgaattct agacctgcct 480
 cgag 484

<210> 58

<211> 554

<212> DNA

<213> Mus musculus

<400> 58

gaattcggcc ttcattggcct actataagtt aagcttcttc agcgggatgc tgctgtcctc 60
 atgcattcagc attgaccgct acgtagccat cgtccaggcc gtgtcggctc atcgccaccg 120
 cgcccgcgtg cttctcatca gcaagctgtc ctgtgtgggc atctggatgc tggccctctt 180
 cctctccatc ccggagctgc tctacagcgg cctccagaag aacagcggcg aggacacgct 240
 gagatgtcga ctggctcagtg cccaagtggg ggccttgatc accatccaag tggcccagat 300
 ggtttttggg ttcttagtgc ctatgctggc tatgagttct gctactcatt atcatccgta 360
 ccttgctcca ggcacgcaac tttgagcggg acaaggccat caaggtgatc attgcccgtg 420
 tggtagtctt catagtcttc cagctgcctt acaatggggg ggtcctggct cagacgggtg 480
 ccaacttcaa catcaccaat agcagctgcy aaaccagcaa gcagctcaac attgcctatg 540

acgtacacct cgag

554

<210> 59

<211> 322

<212> DNA

<213> Mus musculus

<400> 59

```

gaattcggcc ttcattggcct agattgaaat ggcagtggtt ttgtttttt gttttgtttt 60
gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
tcctccgtca cagggtttga tccagccatt tgatgtaact attcctagtc cggattccca 180
cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
ggtccaaggt caggttcaca cccgcactct ccaagcgctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag 322

```

<210> 60

<211> 390

<212> DNA

<213> Mus musculus

<400> 60

```

gaattcggcc ttcattggcct agctgtagat gtttcttcta gagcacctat tttctgttcc 60
tccccctcata ctttttttaa aactttaaaa aagtgcattg gtgtttgcct gcatgaatgt 120
ctgtgctcca tttgcatgat tgggtgcctt ggaaggcgga agaagggtgc agacctcctg 180
gaattgaaat tgtagacagt tgtgatctgc catgtgggtg ctgggaatca aacctgggtc 240
ctatgaaagg tatccagtgt tcttattctt aactgctgaa ctatatcttc agccgtcate 300
ccacactggt ttagtgagat gatggtaata ggaagatttg ttgctctgtt ttgttttgtt 360
ttgttttgtt ttcctagtgc gggactcgag 390

```

<210> 61

<211> 483

<212> DNA

<213> Mus musculus

<400> 61

```

gaattcggct tcattggccta catgctgatg ctcatgctcc tgatgatgtt cgcgggtccac 60
tgcaagtggg tcacaagcaa cgcctactcc agtccaagtg tggtccttgc ctctacaat 120
catgatggta ccaggaatat attagatgat tttagagaag cgtacttttg gctgagacaa 180
aacacgggat aacacgcccg ggtcatgtcg tgggtgggact acggctatca gattgctggc 240
atggccaaca ggaccactct ggtggataac aacacctgga acaacagcca catcgactg 300
gtcggaaaag ctatgtcttc caatgaaacg gccgcctata aaatcatgag gtcccttgat 360
gtcgattatg tgttggttat tttcggagga gtgattggct attccgggga cgatatcaac 420
aagttcctct ggatggtcag gatagctgaa ggggagcatc ccaagacat ccgagcgtc 480
gag 483

```

<210> 62

<211> 189

<212> DNA

<213> Mus musculus

<400> 62

```

gaattcggcc ttcattggcct agggcgggtg taagaaatgc tgttcctact cactccaaag 60
aaccctggtc acttaataca tgccaccctt ttcttagtgt attcatttat tttcccacgc 120
gtgatgggat tctataccct gcaaaccaat cctaagagaa gcttggcaag ggatgaggaa 180
aaactcgag 189

```

<210> 63

<211> 456

<212> DNA

<213> Mus musculus

<400> 63

```

gaattcggcc ttcattggcct aagcttcgga ataataatct tggcaaatct atcttctgaa 60
ccactcattt ctgtgggtctt aatgggtcca atttggggac caataatgtt cattgtctca 120
ggatccctgt caattgcagc aggagtgaac cctacaaaaa gcctgatcat cagcagtcta 180
actctgaaca ctatcacctc tgtgttggct gcaactgcaa gcataatggg tgtagtca 240
gtggctgtgg gttcacagtt tccgtttcgg tataattata caatcaccaa ggggttggat 300
atcttgatgt taattttaaa tatgctagaa ttctgcattg ctgtgtccat ctctgctttt 360
ggatgtaaag cttctgtgtg taactccagc gaggttcttg tagtgctacc atcaaatcct 420
gctgtgactg tgatggcacc cctgtgtca ctcgag 456

```

<210> 64

<211> 330

<212> DNA

<213> Mus musculus

<400> 64

```

gaattcgcct tcatggccta cctgcttaga cacgcttgtg ctgaaggcct tgcccttgc 60
caccagtag gttttcagga tcaactccgt cagcagcttc ctcttctga gctcattccg 120
ttcttttca gccagcttct cagcctggcc tgctggacc agctgcaacc gcttctgcac 180
ttcatcctct atactgtcca ccaactcgaa caccggggc ccgtcgggc cactcttgc 240
cactcgatc cactgttgg acatggcctt gctgaagccc accttgccgc tgggcagggtg 300
catgagctca ctctgcacca ggcctcagag 330

```

<210> 65

<211> 358

<212> DNA

<213> Mus musculus

<400> 65

```

gaattcggcc ttcattggcct acaagaagga cgagcccaag agcagcgagg aggcgctcat 60
cgccctccg gatgccgtgg cgggtggattg caaggaccg ggtgacgtg ttccggttgg 120
acagaggaga gcgtggtgtt ggtgcatgtg ttccggactg gccttcacgc ttgctggcgt 180
catcctcgga ggggcgtacc tgtacaagta ttttgcctt cagccagatg atgtgtacta 240
ctgtggacta aagtacatca aagatgacgt catcctgaac gagccttctg cggatgcccc 300
agctgctcgc taccagacaa ttgaagagaa cattaagatc tttgagcaag aactcgag 358

```

<210> 66

<211> 451

<212> DNA

<213> Mus musculus

<400> 66

```

gaattcggcc ttcattggcct accagatctt cgggagcatc aaactcagt acagcctgag 60
cgctgcgcag aagaacaagg tgaagcgtc cgccatcgcg gtcgtcacca tcttccgtgt 120
ctgctttgct ccctaccacg tggtaactct cgtaaaagct gccagctttt ccttctacca 180
aggagacatg gatgccgtgt gtgcctttga aagcagactg tacacagtct ctatgggtgt 240
tctgtgcctg tctacagtca acagtgtggc tgaccccatc atctacgtgc tgggtacaga 300
ccactctcgg caagaagtgt ccagaatcca cacagggtgg aaaaagtggc ccacaaagac 360
atatgttaca tgctcaaagg actctgagga gacacactg cccacagagc tttcaaacac 420
atacaccttc cccaatccca cgcattctga g 451

```

<210> 67

<211> 349

<212> DNA

<213> Mus musculus

<400> 67

```

gaattcggcc ttcattggcct acacaatgtc gggtctctcc cgccgactgc tctgggccgc 60
cacctgcctc gccgtgtct gctctcggc cgcgcagccc aacatcacca ccttggtctc 120
caacgtgacc gaggtgccga ccacgaccac caaagtggc ccgacgacgc aatgcccac 180

```


cgctgctacca gaaacctgtg cgagcttcaa cagctgtggt tctgtgtta atgccacctt 240
 tactaataat attacctgct tttggttaca ttgccaagaa gcaaataaga cctattgtgc 300
 aaatgaacca ttaagtaatt gttcccaggt gaaccgcaact actctcgag 349

<210> 68

<211> 304

<212> DNA

<213> Mus musculus

<400> 68

gaattcggcc ttcattggcct agtttgacct ggctggaata acgtgtgggc acttccttga 60
 acctttcttg acccttctttg gtgcaacctt gattgggaaa gcaatcatta aaatgcata 120
 ccagaaaata tttgttatag taactttcag caagcacatc gtggagcaga tgggtgacttt 180
 cattggtgct gtccccggca taggtccgct cctgtcagaag ccttttcaag agtacctgga 240
 ggcgagcggt cagaagcttc atcacagaag tgaagcgggc acaccgcagg gagaaactct 300
 cgag 304

<210> 69

<211> 646

<212> DNA

<213> Mus musculus

<400> 69

gaattcggcc ttcattggcct agctagttaa taggtgttta ttaaagatgc agattttaat 60
 tagttaccca gtttgacctt aatcatacat atagtattat gattcagttt gtgatttttg 120
 ttttatgttc ttatgatggc ttataataga ttttttgaga tcagttttaa ttcctccttt 180
 tgaaataact gggatattta atttaaagtt ttctttttaa aataattatg tgcagtgtct 240
 cactattgat gtatgtggac aaagctggct atgagtgcga cgggaaacac agtagtgtcc 300
 tgaagtgcct ggctgccctg cgtactgtat tttagaattc agacattgtc catgatcaga 360
 agtccttgaa gacggcactt cccagtaatc actccagagt gctcagtggg tgtcccctgc 420
 gcgtctacac tcctggcttc ttgagtagaa ggcacaaacc tttattccct ttctagctct 480
 ggctcttgga acctcatgaa gagttgacac cttttgcgtt gctccgttgc cagcccccat 540
 cgttctact gtcttctgtt gcctagagca gtggcagggc aggcgtccag gctgcttcca 600
 cccactgcag gcacctaga gagggagctg ggagaagcag ctcgag 646

<210> 70

<211> 304

<212> DNA

<213> Mus musculus

<400> 70

gaattcggcc ttcattggcct acaaaacctt tccccagag cccatgtata gaccagatt 60
 tgctatgcaa atagtccaga ttcagttatg gctggctaca ttattcagta acttcccaac 120
 aggtagcaca aatattcctt atggaaaaag cccaggactg ttcagtagtt cctcctgtac 180
 tttctgtctg gctacagtat ggagtgtccc atgggacacag gccagccgg agaacagaa 240
 ggagggtctt gggaagaggt agctcactg agagcctaca ttccttacac aagtgccact 300
 cgag 304

<210> 71

<211> 474

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (20)

<400> 71

gaattcggcc aaagaggccn acgaagattg ccaagatttt agagatgtat ttgtcaaaga 60
 ttctgtcga tccatgccct gtgggtgaca gtgtcctctg tgatgcagcc ctaccttttc 120

gtgtggggac attatgatgt atgtaagagc ctgatttaca cagaagaagg caaagtttgg 180
 gattacacag cctgccagcc ggaatccacg gacatgacca agtatctgaa agtgaaactg 240
 gaccctcccg atattacctg tggagaccct ccagagtccct tctgtgcaat gggcaaccct 300
 tacatgtgca ataagtgtg tgatgcgagt acccctgaac tggcacaccc tcctgagctg 360
 atgtttgatt ttgaaggaag acatccctcc acattttggc agtctgctac ttggaaggag 420
 taccctcaaac ctctccaggt taacatcact ctgtcttggg gcaaaaccct cgag 474

<210> 72

<211> 536

<212> DNA

<213> Mus musculus

<400> 72

gaattcggcc aaagaggcct acttgatcct tgtgcctcag cttcccaagt tctaagataa 60
 cagacatgtt ccacatgcg cagttccctt ctttgcata gtatatatcc tcacatgta 120
 cacataatgc tatctgtgat ggtttatata tgcttggtc agggagtggc actgttatga 180
 ggtgtaacct ctttcaacaa ggtgataaag atgaaatggg gtattactgt gctcactgga 240
 cacactgttc agcccccatc tcaccgtaac catgggaaca ctgacagact ttctgtgggc 300
 tctcttgcaa aggtctgtgc cagttttgtt atcgggctat tggtttaagg tccacacctc 360
 agtcataga gctgtcacca ctgcctacat gtgatactgt aaacccatct cctacggaac 420
 cagagaagtt gagagaccac agagagtgtc tggtagctga ctgagtatac tggacatctg 480
 tgtcaaaatg caaaaacaat gaagatgagc cactggagc cagggagcat ctcgag 536

<210> 73

<211> 384

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (31)

<220>

<221> unsure

<222> (100)

<220>

<221> unsure

<222> (103)

<220>

<221> unsure

<222> (138)

<400> 73

gaattcggcg aaagaggcct agacgccttg nagtccgctc tgccatcctt taaaccgcag 60
 acctaacttc ataaaaagaa aaaaaaagga aaaaaaaaaa gnaaaaaaa aaaaaaagc 120
 caagttaacc tgggaattntt tttttgtaca ttgaggcca cagggaatac attgtttcaa 180
 taccaaaagt tttgggtcat ttttgagaag ctggaagctt gctctcatgc tcaccactag 240
 ctttateccc agcaaaactc ctctccagac aggcagccgc attctcagca tggggaaccg 300
 gtgggggtgc acgggggtgc tatgctgttt ctataaagac tgcacacacg caatcgtgtg 360
 tggcattttt ttggtaaaact cgag 384

<210> 74

<211> 422

<212> DNA

<213> Mus musculus

<400> 74

gaattcggcc aaagaggcct actaccttca taaacattta gattgtctgt gactcagcta 60

```

ggatgatatac tgccttacct gcatttagcc aggtagttta acctaagaga agaccttggtg 120
taaaaactaaa gatttaagta tgtacgcac agatgtttta ggattgcagt tgacaatttc 180
tgtaacctag gccttcagaa gttagaactg cagttgacgg acggaagctt gagggttttc 240
tgagatggac tacatttctt catttccatg tctaattgtt gttctctaa atgtcctctg 300
ctttcaaata ttggctccta tattgagtgg tagtctcagg aggtagagggc aggaggatct 360
cttgagtttg cccccaacct tagtctacag agcaagttcc aggatatctc gaggttctcg 420
ag 422

```

<210> 75

<211> 388

<212> DNA

<213> Mus musculus

<400> 75

```

gaattcggcc aaagaggcct acaatccaca agggtccttt cttccgagtc agggaggaag 60
ctatcctgtg gattctcata gacacccaga ccacttcatt caccctctt tctcccatgc 120
tggggctcag acctaggaca gcatgtattc taggcagca ttcaaccact gagctaaatc 180
tcctgccatc cttctaataa cagggaggaa gggagaaata gtccaggaaa ccgggtatct 240
atcacgtggt tggcttactt caacgcttag aagtttggag tgtaggattc agtagttatt 300
ttctaggttg ggtgactgag gtccagaagg cttaaatgac cagggttaca caggcaggaa 360
gaggcacaca aatacactgg cactcgag 388

```

<210> 76

<211> 525

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (493)

<400> 76

```

gaattcggcc aaagaggcct acacagattt ctcttgaggt cagttgggtc cagaaagatc 60
caaattatga gactgtcagc aagaattatt tggcttatat tatggactgt ttgtgcagca 120
gaagattgta aagggtctcc tccaagagaa aattcagaaa ttctctcagg ctctgtgtca 180
gaacaactat atccagaagg caccaggtt acctacaaat gccgccctgg ataccgaaca 240
cttggcacta ttgtaaaagt atgcaagaat ggaaaatggg tggcgtctaa cccatccagg 300
atatgtcggg aaaagccttg tgggcatccc ggagacacac cctttgggtc ctttaggctg 360
gcagttggat ctcaatttga gtttgggtgca aaggttggtt atacctgtga tgatgggtat 420
caactattag gtgaaattga ttaccgtgaa tgggtgcag atgggtggat caatgatatt 480
ccactatgtg aanttgtgaa gtgtctacct gtgacagaac tcgag 525

```

<210> 77

<211> 263

<212> DNA

<213> Mus musculus

<400> 77

```

gaattcggcc aaagaggcct atgcattttc agttaatttt tggagagtgc atatgtatac 60
acattaatcg tctgtatact ccatactatt aatcttttag ctctatttat ttttccaaag 120
tcagactgtc ttgatagcaa tatagttagt tttaaagtca gctagtacaa gaattctaga 180
tgtattctcc ttcttttcta ttatatggc tatttttggg actcctgtct gcttccttca 240
ttgtatctcc aacacatctc gag 263

```

<210> 78

<211> 437

<212> DNA

<213> Mus musculus

<400> 78

```

gaattcggcc aaagaggcct agaaagatgt atcatggaat gaacccgagc aatggagatg 60
gatttctaga gcagcagctg cagcaacagc agcctcagtc cccccagaga ctcttgccg 120
tgatcctgtg gtttcaactg gcgctgtgct ttggccctgc acagctcacg ggtgggttcg 180
atgacctcaa cgtgtgtgct gaccaggcgc tcccagagaa tggcttcagg acccccagcg 240
gaggagtttt ctctgaaagc tcagtaacct gatttcaact ccaagacgga ttcaggctga 300
agggctctac aaagaggctg tgtatgaaac attttaatgg gaccctaggc tgggtcccaa 360
gtgacaaacc tgtctgcata caagaagact gccgcatccc ccaaattgaa gatgctgaga 420
ttcgaaacaa cctcgag 437

```

<210> 79

<211> 456

<212> DNA

<213> Mus musculus

<400> 79

```

gggggtcgtt atcattgctt ggctgttatt attaccgttg ttattttatt tttatttttt 60
aaacctaaagg gagaaagaca catacacaca aaactgtggg atttatttaa catgatcttg 120
gcaaacgcct tctgcctctt ctctctttta gacgaaaccc tccgctcttt ggccagccct 180
tcctctccgc agggctctga gctccacggc tggcgccccc aagtggactg tgtccgggcc 240
aatgagctgt gtgcggctga atccaactgc agctccaggt accgcaccct tcggcagtg 300
ctggcaggcc gggtatcgaa taccatgctg gccaaataagg agtgccaggc ggccctggag 360
gtcttgagg aaagccatt gtatgactgc cgctgcaagc ggggcatgaa gaaggagctg 420
cagtgtctgc agatctattg gagcatctac ctcgag 456

```

<210> 80

<211> 574

<212> DNA

<213> Mus musculus

<400> 80

```

gaattcggcc aaagaggcct acagtgatct agtgatgtca tccagtatga tccatctgtt 60
gtcctctgtc atccccagca cccattttga ctcatcttct tcttgactg caaatcaaaa 120
cagtccatcc ttccagctg gaaagccaag cttcttcacc tctccagtc tgggtccctc 180
agcacagtct agcgctttct ctacaggagc acctaccagc tctctggaac tccagtctgg 240
aagtcgtttg gatttcacat ccggctttta ctccactccg ccctggact tcagcactcc 300
agccccctca cggtcagagc agcttgcttt cccatctttg atgtcaagcg atccatcaac 360
cttcttttct caaacttttt ccaccatggc tgagacattt tcaactgtcca actctatgaa 420
tttgcaatca cctcagcttt ctgtttctta tcccacaagt cttagagccgt cttagccaca 480
gtcaagtgca gaccttcttt tgaacacagt cactgttctt ctagtcccc ccgagaggcc 540
cccactttca agctccccct ctgactctct cgag 574

```

<210> 81

<211> 384

<212> DNA

<213> Mus musculus

<400> 81

```

gaattcggcc aaagaggcct gcctatggct attcctgacc cttcacccct caccttgatg 60
cagccagtag ctggatcctt gaggtcacgt tgcatactcg tttcaaggta accatggtgc 120
caaggtcctg tgggttgac cagaaaaggc catcaatttt ccccttgctt gtaatttaac 180
attaaacca tagctaagat gttttatata tagcacctat gcagagtaaa caaacagta 240
tgggtatagt atgtttgata ccagtgtctg gtgggaatgt aggaagtgcg atgaaaagca 300
agcctttgta ggaagttggt ggggtgggat tgcaaaaatt ctctgctaag actttttcag 360
gtggacataa cagacatact cgag 384

```

<210> 82

<211> 535

<212> DNA

<213> Mus musculus

<400> 82

```

gaattcggcc aaagaggcct aggaaccatt aaagcacatt ggaaaaggag caggtgaatt 60
cattaaagcg ctcattgaagg agattccagt gttacttcag attccgggtgc tggcgatcct 120
ggcgctggct gtcctgagct tctgctatgg tgctggaagg tcagttccta tgctgagaca 180
cttcgggtggt cctgacagag aacctccccg agcacttgag ccagatgaca gaagacgaca 240
gaagggactt gactatagac tccatggtgg agcaggtgat ccagatttct cttacagggg 300
cccagctggc tccatcgagc aaggccctta tgacaaaatg catgcgagta agagagatgc 360
tttgagacag agatttcact ctggcaacaa gagccctgaa gtgctccggg catttgactt 420
acctgacaca gaggcacaag aacatccaga agtggtcccc agccataaat caccattat 480
gaacacaaac cttgagactg gtgaactccc aggagaaagc accccggaac tcgag 535

```

<210> 83

<211> 430

<212> DNA

<213> Mus musculus

<400> 83

```

gaattcggcc aaagaggcct aaatcataaa tatctgtatg ctattgaaat ttaactttgt 60
atgatgctta aaccactatt tggggaaata ataaaaataag tctttaccat gtatgaaaga 120
aattttaaaa aatacaaaat attttctgat tagcatctag cttataataa attttcaaaa 180
aagctgaagg caactgtggc cttcatcagg atgcactgag aactatatag ttacgtcctg 240
cgttttgtat aaactgagat gctcatgtgc tcccccttag aacaggcaat gtgctatgca 300
taacatagtt gtacattatc tttgcagtgg ctttgagttt tattttttat tatttaaaac 360
tgtagttata aaaattttca gtatagtaca gtacatatac tgtgaggcgc gattctagac 420
ctgcctcgag 430

```

<210> 84

<211> 528

<212> DNA

<213> Mus musculus

<400> 84

```

gaattcggcc aaagaggcct atgcagcttg taatggtttc gagaatggta atgaagatta 60
tgctaggtag aaacactac aaaagcagat gtgtggaatc ttttcctttt cctagacttt 120
gtatttattt aaaggcaaac aaaacctaga gtatcccgct attttttagtc tagatctgta 180
gcaactataa tctgaaagag aaacttgttt aaaaaaaaa caaacactgt gaacccaac 240
aggcctggag gatcaagaat cagagacata gttgattttt taggctttgg cctgcagcgc 300
ttctcattgt tagcctcagt tcccccaaa ggtcagacaa gtactagcaa tttcccagac 360
aacctcactg attttagtca accaaggagc aagtacttgc tctagaatca atgttggtaa 420
tggtcaacag ctcacgggcc gtgctgcgca tcttaacgta gagccagtgt gagttcaggg 480
ccagcactgt cttcccagca gacctttctg attgcgcgca gtctcgag 528

```

<210> 85

<211> 144

<212> DNA

<213> Mus musculus

<400> 85

```

gaattcggcc aaagaggcct aattgaattc tagacctgcc tcgagtgttt tctttgactg 60
acttaaaata cttctatgat ttttttttct cttctagttt tcctgtgat gtgtgccagt 120
gtgaattgta tgggtgtact cgag 144

```

<210> 86

<211> 379

<212> DNA

<213> Mus musculus

<400> 86

```

gaattcggcc aaagaggcct actttggttg tttcgctacc tgctgagcct ccgcctggat 60
gttgaaactg tacgcgatgt ttctgacact catTTTTTTg gtcgaactag ttgccgccat 120

```

tgttggattt gttttcagac atgagattaa gaacagcttt aaaagtaact atgaaaacgc 180
 tctgaaggag tacaactcca caggagacta tagaagtga gctgtagaca agatccaaag 240
 tacgttgcac tgttgcggtg tcaccaatta cggagattgg aaaggtaga actattactc 300
 agaaacagga tttccaaga gctgctgtaa actggagggc tggtatccac agagagatgc 360
 agataaagtg caactcgag 379

<210> 87

<211> 441

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (60) .. (61)

<220>

<221> unsure

<222> (136)

<220>

<221> unsure

<222> (151)

<400> 87

gaattcggcc aaagaggcct actaacttcc atttctacct tatgtctca aaatgcatgn 60
 ntgtgatctg aaagaagcat ccagaaaaac tgttcatttc ctgagtagcc aagttagaac 120
 aaataaatga tacacnaaga aaactgattt naattctgga caagaacctg tgaatgtttt 180
 cttttgaagg aatgtggaag acataaggac tgagatggca aaggcataga aacctgtaca 240
 cagatcttca tctactgttc ttgtaggacc tggtaggtac cactgttttag actattatgg 300
 gcagagtaag gtgaggtcat aggatttcaa ggggaaatag tgatatgaaa aaatttagct 360
 agaggtcatg tgtgatagtt tggccacaaa tgtttttcat tctatccatg acctctgaaa 420
 ttgagggaagc aggatctcga g 441

<210> 88

<211> 372

<212> DNA

<213> Mus musculus

<400> 88

gaattcggcc aaagaggcct aggaagatga acaaacgaca gctctactac caggttttta 60
 actttgccat gatcgtgtct tctgcgctca tgatctggaa aggcctgatt gttctcacgg 120
 gcagcgagag tcccatcgtg gaggtactca gtggcagtat ggagccggcc ttccacagag 180
 gagatctgct gttcctcacg aatttccggg aggaccccat cagagctggg gaaatagttg 240
 tttttaaggt tgaaggaaga gacattccga tagttcacag agtaatcaag gtttcatgaa 300
 aaagataatg gtgacatcaa gtttctgact aaaggagata ataatgaagt cgatgataga 360
 ggcagcctcg ag 372

<210> 89

<211> 436

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (354)

<400> 89

ctcaggatg tccttcttgc etttctctc ctcacagcc ttctcatgct ccagagactc 60
 gatgcgagat gcatttttct ctggtcfaat aatcaacgtt tccttgtttt taaaagcctt 120
 ctgtggttga ttgttttcca tatttgctgt ggactcgatc agtggagatt tcttatcccg 180

cttctcacta tggagcagag tttgtttttt ttgcaactct tctagatata ccaaaatgtc 240
 ttcattctgct acatcaaagg ctgtttggcc cactttgttg accgtctcca tatcacacag 300
 attgtccact aaaatccgac atgcttcctt taccccaatg agctgcagca tgangagggtg 360
 tccagccatc ataattctta atattaacat catagcctgc ctgtattaaa agtttttaggg 420
 ctctttgggc gaattc 436

<210> 90
 <211> 373
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (12)

<400> 90
 gaattcggcc anagaggcct actttctgaa gacaaaagct aagatgaagg acacgccact 60
 ccaagtccat gtgctacttg gcctagctat cactacacta gtacaagcta tagataaaaa 120
 agtggattgc ccccaattat gtacctgtga gatcaggcct tggtttaccc cgagatccat 180
 ctatatggaa gcacgcagag tggactgtaa tgatttaggg cttttaaact tcccagccag 240
 attgcctgcc gacacacaga ttctgctcct acagactaac aatattgcaa gaattgaaca 300
 ttcacacagc ttcacagtga acctgactgg cctggactta tctcaaaaca atttatcaac 360
 agtcacactc gag 373

<210> 91
 <211> 306
 <212> DNA
 <213> Mus musculus

<400> 91
 gaattcggcc aaagaggcct agaagtagaa agctgccatt tgtttaagag aaaataccga 60
 aaccttactt aacagtgtat aatgtttata aaggaagttt gtaataggaa ctgggcaggt 120
 ttgattggta ggtaccatac tgagggcagc cttctatagc acatctctcc aatgtgattt 180
 gtggacattc aaagcctgct tggttccctg caggaccaca catgctgctg cactcactcc 240
 tggactgtag aagtaaatac cttaatgctt tatcatttga cattctaacc aaggaaaaag 300
 gtcgag 306

<210> 92
 <211> 344
 <212> DNA
 <213> Mus musculus

<400> 92
 gaattcggca aagaggccta ctctccccc cccctctctc tctctctcgc atactaacta 60
 ggtttgactg tattactcgt accagattta aaattagact agccttgcca caacgcccta 120
 ctgagaggta ctgtcgaact gtagacagca tgatgttctt tgatgggtgaa agtctaaatc 180
 tggaccgtgt tcagagatac caaatgatga ggctgaaaag gggaaagggg gttcttcagt 240
 ctcttcttct tcttcttttt attttttttt ccatgatgtt ttctctatgg ccagtgcata 300
 tgggtgtgtc acccttgcat gttgcccaacc gcaggcatct cgag 344

<210> 93
 <211> 530
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (30)

<220>

<221> unsure
<222> (69)

<220>
<221> unsure
<222> (105)

<400> 93
gaattcggcc aaagaaggct aggaagctgn tgagctagac ggaacaaaa gcattctaaaa 60
ggatgtacnt cagaggggatt cagccattcc actcctaccc ctccntcaga acctcatgaa 120
gttctctggct ttcctgagtc tgttgagctt ggtgctgcag aaggcagaga cagcttctct 180
cctaggggag agagaagag aagagcagag ccctgaggaa ggtgacaact tacgcgtccc 240
tgtatgtggg gaaccatacc ctgagcatag aggactacaa cgagggtcatt gatctcagca 300
actatgaaga actggcagac tatggagacc agatccctga ggctaaaata agcaatctga 360
ctcttccaac aagaactagt cccactagca ctgtggctca gaagacattg tcaccaaacc 420
tcacgatggc cgtacctacc accactggcc tactaaactc ccagagcagt catgcaaaac 480
tgagaaggat cgacctctct ggcaactcca tctcctccat ccacctcgag 530

<210> 94
<211> 644
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (191)

<400> 94
gaattcggcc aaagaggcct atggacctgc gtcagtttct tatgtgectg tccctgtgca 60
cagcctttgc tttgagcaag cctacagaaa agaaggaccg agtacaccat gaccttcagc 120
tcagcgataa agttcacaat gatgctcaga attttgacta tgaccatgat gccttcttgg 180
gtgcagaaga ngcaaagagt tttgatcagc tgacaccaga agagaccaag gaaaggcttg 240
gaaagattgt aagtaaaata gatgacgaca aggatgggtt tgctactgtg gatgaactca 300
aaggctggat taagtttgca caaaagcgt ggattcacga ggtgtagag cggcaatgga 360
aggggcacga cctcaatgat gatggcctcg tttcctggga ggagaataaa aatgccacct 420
acggctacgt tttagatgat ccagatcctg atgatggatt taattataaa cagatgatgg 480
tcagagatga cgggaggttt aaaatggcag acaaggatgg agacctaat gccacaaagg 540
aagagttcac agctttctcg caccctgagg aatatgacta catgaaagac atagtcgtgc 600
aggaaacat ggaggatata gacaagaatg ctgatgggct cgag 644

<210> 95
<211> 413
<212> DNA
<213> Mus musculus

<400> 95
gaattcggcc acagaggcct atgctgtcgg agatggatgt aacaggctcag gcttttgaag 60
acatgcagga gccaaacggg cggtacttc agcagttacg ggaaaaggat gacgccaacc 120
ttcaagctca tgcggagcg gatcaaggcc aaccagattc acaagctgct ccgagaggag 180
aaggatgagt tgggcgagca ggttcttggc cttaagtccc aggtggatgc ccagctgctg 240
accgtacaga agcttgagga gaaggagcgg gctctgcagg gcagcctcgg ggtgtggaa 300
aaggagtga ctctgcgcag ccaggctctg gagcttaata agagaaaggc tgtagaagca 360
gccagttgg ctgaggacct gaaggtgcag ttggagcatg tacagagctc gag 413

<210> 96
<211> 488
<212> DNA
<213> Mus musculus

<400> 96


```

gaattcggcc aaagaggcct attcagcatc atcattcagt ttctgttcac aagagcacca 60
gctgagctga aatccccctt ccagagggca gaatggtctc atgctcgctt ctcccagtgg 120
ctggatgata acccatctga aaaggacagg ctgctcctcc tcaggggagc cctggaagct 180
tatgttcagt cagtgagaag cagggacggt aaagaatttg caccagttta tcccattatg 240
gttcagctgc ttcaaaaggc tatgtctgct cttcagtgc ttgcagtctc catgaacaga 300
cccgtccaaa gaaagcagtg ccaaattggtg gatggccagg aattgcacca gccagatca 360
tcacatcttg acagggagga catacagaaa atgcctgact ctgactcact gtttgctgt 420
acagagaaaa cagaaacttc tgttttgta tttttaaag atcttttaac acctcttta 480
aactcgag                                     488

```

<210> 97

<211> 597

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (144)

<220>

<221> unsure

<222> (280)

<400> 97

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gaattcggcc aaagaggcct agatgtgggc tccttcatga taaaactggt ggaaggcctt 60
cagggccaga tgtggtcttc agattgggct gaggagcttc ggaaagctga ccagcagaag 120
gagcagacct atcgggataa ggcnttaatg cctgtattac agcacctgaa cccagtatgg 180
gtgttacagc aggtggagga aactctgcct gacaatgcac ttcttgggt tgacggaggg 240
gactttgtgg ccactgctgc ctacttagtc cagcccagan ggcctctgag ctggctcgat 300
cctggggcct ttgggactct gggagttggc gcaggttttg cacttggggc caagctgtgt 360
cagccggagg ctgaggtgag gcattggatg tgggagacta actgccttct gggctgcgaa 420
ctaccctaac tgccctgggt cgtctcccc cctccctcag ctccctccag gtttgggtgc 480
tgtttgggga tggagccttt ggctacagcc tcattgagtt tgacacgttc gtcagacata 540
aggtaccagt gatagccttg gtaggaaacg atgcagggtg gaccagatt tctcgag 597

```

<210> 98

<211> 556

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (16)

<220>

<221> unsure

<222> (82)

<220>

<221> unsure

<222> (104)

<220>

<221> unsure

<222> (136)

<220>

<221> unsure

<222> (223)

<220>
 <221> unsure
 <222> (331)

<400> 98

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gaattcggta agagangcct ggctgagaac tctggacgca agtttgctgc aactcacaga 60
tttagaacc ccc aaaaagagag anagaatgtg gcagatcatt ttcntaactt ttggctggga 120
tcttgtcttg gcctcngcct acagtaactt taggaagagc gtggacagca caggcagaag 180
gcagtaccag gtccagaacg gaccctgcag gtacacgttc ctntctgccg agaccgacag 240
ctgccgatct tcctccagcc cctacatgtc caatgccgtg cagaggggatg caccctcga 300
ctacgacgac tcagtgc aaa ggctgcaggt nctggagaac attctagaga acaacacaca 360
gtggctgatg aagctggaga attacattca ggacaacatg aagaaggaga tggaggagat 420
ccaacagaat gtgtgcaga accagacacc tgtgatgata gagattggaa ccagcttgct 480
gaaccagaca gcagc aaaa ctcggaaact gactgatgtg gaagcccaag tactaaacca 540
gacgacaaga ctcgag 556
  
```

<210> 99
 <211> 380
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (14)

<400> 99

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gaattcggcc aaanaggcct agcgccttct tggaaatagcg tgtgaagatg gccctcatat 60
cctctgcca tgcgtaaaag gtgtaggcag catgccacct gcggcgacaca gctggctcca 120
tggcccgcca ggtcaggtgc caccacctca tagccgagtc gcacaaagaa gtctagctgc 180
tccttcagca tggcgagtga gccaccgact ccgtgaatga agaacagcac cacatcagcc 240
tgcgaccct tgcagctggt gatgcgtgc tcacagtcga tgtggatggt cctcttcgga 300
cgccgtgggc ggcgcgctcg cccgctgect ggggtggccc ggggtgtctc tcctgcgggc 360
tcagccagct caacctcgag 380
  
```

<210> 100
 <211> 592
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (52)

<220>
 <221> unsure
 <222> (117)

<220>
 <221> unsure
 <222> (132)

<220>
 <221> unsure
 <222> (431)

<400> 100

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gaattcggcc aaagaggcct agagcgaccc tgttacacta aagatgaaag gntgggggttg 60
gctagccct acttttggg gtccctgctgg gaactgcctg ggatcgaagg agccaanatc 120
tacactgtgg ancttgagg gctctggtgg atgaattaga gtgggaaatt gcccgctgg 180
accccaagaa gaccattcag atgggatcct tccgaatcaa tccagatggc agccagtcag 240
  
```

ttgtggaggt accttatgcc cgctcagagg cccacctcac agagttgctt gaggaggtgt 300
 gtgaccgaat gaaggagtag gggaacagat tgaccttcta cccaccgcaa gaactacgta 360
 cgcgtcgtga gccggaatgg agaattccagt gaactagact tacagggcat ccgaattgac 420
 tcagatatca ncggcaccct caagtttgcg tgtgagagca ttgtggaaga atacgaggat 480
 gagcttatcg aattcttctc cagagaggct gacaacgtta aagacaaact ttgcagtaag 540
 cggacagatc tatgtgacca tccctgcac agatcctcac gaagagctcg ag 592

<210> 101
 <211> 382
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (150)

<400> 101
 gaattcggcc aaagaggcct aaagacatgg tcagttttga agtcccagtc catcacgttc 60
 ttgtcacagc atgaaatgat ggcttcacn aaatgtggac gcttccacag gataagaaag 120
 ttctccatc tttgtgtgt gaggccaaaa ctggtgccag gctgacatgt cttacttgtgt 180
 ggtagacag agcagcaaat ggaatggcga gccttctcc agcagcagag ccctgccctg 240
 accaacctaa gacaatcgaa aaggaatctg gtgacacagt tcaggaagaa acatcagaac 300
 ctaactcgga gaaatctgat gtaagtgggt acagcaagca gccacaacaaa ggaaatagcc 360
 cagtgcagc caagaactcg ag 382

<210> 102
 <211> 640
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (9)

<220>
 <221> unsure
 <222> (13)

<220>
 <221> unsure
 <222> (30)

<220>
 <221> unsure
 <222> (38)

<220>
 <221> unsure
 <222> (41)

<220>
 <221> unsure
 <222> (47)

<220>
 <221> unsure
 <222> (54)

<220>
 <221> unsure

<222> (56)

<220>

<221> unsure

<222> (60)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (72)

<220>

<221> unsure

<222> (76)

<220>

<221> unsure

<222> (122)

<220>

<221> unsure

<222> (126)

<220>

<221> unsure

<222> (130)

<220>

<221> unsure

<222> (183) .. (184)

<220>

<221> unsure

<222> (312)

<220>

<221> unsure

<222> (316)

<220>

<221> unsure

<222> (353)

<220>

<221> unsure

<222> (388)

<220>

<221> unsure

<222> (423)

<220>

<221> unsure

<222> (490)

<220>

<221> unsure

<222> (503)

<220>

<221> unsure

<222> (609)

<220>

<221> unsure

<222> (612)

<220>

<221> unsure

<222> (616) .. (617)

<220>

<221> unsure

<222> (623)

<220>

<221> unsure

<222> (632) .. (633)

<400> 102

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gaattcggna acngaggcca aaggaatccn taagggcntg naaactntct gaananaaan 60
gctangatga angacncgcc actccaagtc catgtgctac ttggccaagc tatcactaca 120
cnagancagn ctatagataa aaaaaaggat tgcccccaat tatgtacctg tgagatcagg 180
ccnnggttta ccccgagatc catctatatg gaggcacgca cagtggactg taatgactta 240
gggccattaa acttcccagc cagattgcct gccgacacac agattctcct cctacagact 300
aacaatattg cnaganttga acattccaca gacttcccag tgaacctgac tgnccctggcc 360
ttatctctcc acaatttacc ttcagtcnct aatattaatg tacacaagat gtctcagctt 420
ctntctgtgt acctagagga aaacaagcta cctgagctcc cggaaaagtg tctatatgga 480
ctgagcaacn tgcagggact ctncgttaat cacaacctgc tctctaccat ttcctcccgg 540
agccttcatt ggcttacata atcttctccg gcttcatttc acctcacaca gactgcagat 600
gatcaacant cnatgnnttg atnctctccc cnntctcgag 640

```

<210> 103

<211> 337

<212> DNA

<213> Mus musculus

<400> 103

```

gaattcggcc aaagaggcct actctcttta cctctcttta cctgtatatt ataaacagct 60
gggaatgtca cctagccaga gtggactgtt ggtgggcatt cgatacttca ttgaattctg 120
cagtgcctcc ttctggggtg tagttgcaga tcgtttcaga aagggcaaaa ttgtcctcct 180
cttttctgct ctgtgttggg ttttgttcaa cctgggcatt ggatttgtca aacctgctac 240
cttgagatgt ctaccaaaga tcccccaac agctcacccc accaatgtaa gtcacccagt 300
aactgttctg ccaatgaact cctccactgt gctcgag 337

```

<210> 104

<211> 382

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (86)

<400> 104

```

gaattcggcc aaagacgcct aagaacccat gggactccca aggcggctgc tgctgctgct 60
gttgctggcg actacctgtg tccancctc ccagggcctg cagtgcacgc agtgtgagag 120

```

```

taaccagagc tgcctggtag aggagtgtgc tctggggccag gacctctgca ggactaccgt 180
gcttcgggaa tggcaagatg atagagagct ggaggtgtg acaagaggct gtgcccacag 240
cgaaaagacc aacaggacca tgagttaccg catgggctcc atgcatcaca gcctgacaga 300
gaccgtgtgc gccacaaacc tctgcaacag gccagaccc ggagcccag gccgtgcttt 360
ccccagggc cgttacctcg ag 382

```

<210> 105

<211> 437

<212> DNA

<213> Mus musculus

<400> 105

```

ggctccaacac tggaggcatc ttcctcatgg ctgggggttg attcggcttc cttttttgct 60
ggatattgat gatccttgtg gttcttacct ttgttgttg tgcaaatgtg gaaaagttgc 120
tctgcgaacc ttatgaaaac aagaatttat tacaggtttt ggacactccc tatctgctca 180
aggaacaatg gcaattttat ctttctggca tgctattcaa taaccagac attaatga 240
cctttgagca agtctacagg gattgcaaaa gaggtcgagg tatatatgct gcttttcagc 300
ttgagaatgt cgtcaacgtc agtgatcatt tcaacattga ccagatttct gaaaacataa 360
atacggagtt ggaaaacctg aatgtgaaca ttgatagcat tgaactgttg gataacacag 420
gaagggaagag cctcgag 437

```

<210> 106

<211> 169

<212> DNA

<213> Mus musculus

<400> 106

```

gaattcggcc aaagaggcct acaggggtaa gggggagatg atttttaaaa aaattcagct 60
gttggttagg gcatgtgaag taggggcatt atgtctgttt cttattacga taaaggctcc 120
tcagtcttta ctgacccta aagtcctgaa tcacaccagg cgtctcgag 169

```

<210> 107

<211> 446

<212> DNA

<213> Mus musculus

<400> 107

```

gaattcggcc aaagaggcct agttcgtatc ttctgttgac tacaaccccc gggacaacca 60
gctctatgta tggaaacct actttgttgt gcgctatagc ctggagtgtg gacccccaga 120
tcccagtgtc ggcccagcca cttccccgcc tctcagtacc accaccacag cccggcccac 180
accctcacc agcacagcct cgctgcagc caccactcca ctccgcccgg caccctcac 240
cacacacca gtgggtgcca tcaaccagct gggacctgac ctgcctccag ccacagctcc 300
agcaccagc acccgaaggc ctccagcccc caatctgcat gtgtccctg agctcttctg 360
tgaaccacga gaggtccggc gggtcagtg gccagctacc caacagggta tgctggtgga 420
gagaccttgc cccaagggaa ctcgag 446

```

<210> 108

<211> 426

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (87)

<400> 108

```

gaattcggcc aaagaggcct acttgctccg gcatggctgc cttaggagcc tggctgtcca 60
gtgtccggag attgcactgc agcgtantgg cgcgggccgg tggccagtgg cgactccagc 120
aagggtctgc tgccaacct tccggtatg ggccccacac ggagctccct gactggtcct 180
tcgcggtatg ccgcctgca ccccaatga aaggccaact tcgaagaaaa gctcaaaggg 240

```

```

agaagcttgc aagacgagtt gtactgctga cacaggaaat ggatgctgga atacaggcat 300
ggaagctcag gcagcagaaa ttgcaggaag aaaggaagaa ggaacatgat ctcaaacccta 360
aagggaacttt actgagaagc ccacttccga atcaataaaa agcagctcct gccccacaaa 420
ctcgag                                           426

```

<210> 109
 <211> 454
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (18)

<220>
 <221> unsure
 <222> (448)

```

<400> 109
gaattcggcc aaagaggnc tccagcact tccccctac acaatgetgc ctgctgccct 60
aacctccttt ctggggccat tccttttggc ctgggtgctg cctcttgccc gaggccagac 120
ccccaactac acgagacctg tgctcctgtg cggaggggac gtgaccgggg agtcagggtta 180
cgtggcaagt gagggtttcc ccaacctcta ccccccaaac aagaagtggg tctggacaat 240
tacggtgccc gagggccaga ctgtgtccct gtccttcgga gtcttcgata tggagctcca 300
cccttcctgc cgctacgatg ctctggaggt ctttgctggc tctggcacct caggccagcg 360
acttggaacg ttctgcggca ccttcaggcc tgcacctgta gtcgcacctg tcaaccaagt 420
gactttaagg atgacaactg acgtgggnct cgag                                           454

```

<210> 110
 <211> 377
 <212> DNA
 <213> Mus musculus

```

<400> 110
gaattcggcc aaagaggcct agtctgaatg ccagaatgga taaccgtttt gctactgcat 60
ttgtgattgc ttgtgtgctt agtctgattt ccaccatcta catggcgccc tccataggca 120
cggacttctg gtatgagtat cgaagtccca ttcaagagaa ttcaagtac tcgaataaaa 180
tcgcctggga agatttcctc ggtgacgagg cggatgagaa gacttacaac gatgttctgt 240
tccgatacaa cggcagcttg gggctgtgga gacgggtgat caccataccc aaaaacactc 300
actggatgac gccaccggaa aggacagagt catttgatgt ggttaccaa tgcatgagtt 360
tcacactaaa tctcgag                                           377

```

<210> 111
 <211> 426
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (117)

```

<400> 111
gaattcttcg gccaaagagg cctactgatt cgaatcagaa aacttacact gaagcgacag 60
aggaagcttg ttcctttgag taagaaggtt gaacgaaggg aaaaacgaag agagganaaa 120
gcattaatag ctgcccagct ggacaatgct attgagaagg aattgctgga gagactgaaa 180
caagatacgt atggcgacat ctacaacttc cccatccatg ccttcgacaa ggccttagag 240
aaacaggaag cagaaagtga ctctgaagat gaagacgaag aagaggatgt ggggaaaaga 300
gagttttaga aagatgagga ggtggaggag agtgacctga gtgactttga ggatatggat 360
aaactgaata ctgacagtga ggaagaccag gatgatgaat cctccaatga agaagagcga 420
ctcgag                                           426

```

<210> 112
 <211> 460
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (101)

<400> 112
 gaattcggcc aaagaggcct accaaccctt accagttcgc atcttctgtt gactacaacc 60
 cccgggacaa ccagctctat gtatggaaca actactatgt ngtagcgctat agcctggagt 120
 ttggaccccc agatcccagt gctggcccag ccacttcccc gcctctcagt accaccacca 180
 cagcccgggc cacacccttc accaccacag cctcgccctgc agccaccact ccactccgcc 240
 gggcaccctt caccacacac ccagtgggtg ccatacaacca gctggggacct gacctgcctc 300
 cagccacagc tccagcaccc agtaccggaa ggctccagc cccaatctg catgtgtccc 360
 cttgagctct tctgtgaacc cagagaggtc cggcgggtcc agtggccagc tacccaacag 420
 ggtatgctgg tggagagacc ttgcccgaag ggaactcgag 460

<210> 113
 <211> 501
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (22)

<220>
 <221> unsure
 <222> (35)

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (374)

<220>
 <221> unsure
 <222> (417)

<220>
 <221> unsure
 <222> (421)

<400> 113
 gaattcggcc aaagaggcct anccagatcc tcgtngtcac tcttccgacg gatcccacaa 60
 gggcaganaa tcccagggtc tgactcctaa ccgtgagcgt ccaggcgcta ctctgggccc 120
 ccttccggtc cccaccttca cgccgctgag tctgggaccc cccgactcgc taaggaccaa 180
 cttcgcaact caagaagaac acgggggtgc ccaggacgag cgacgctgag agttaaggct 240
 gtgacccctt taacctcttc gtccaaatcc ccgtggcgcc cttecccaact gcagacgcgc 300
 ccagcctctc cggtccacc gcaatgggtc ccggttcccc acgccttaaa ccgggagccg 360
 gacccggggc ctctgtgcat gctgttgcgt ggaccctaaag cgcagacccc atttttnccc 420
 ncaggcgctg gggcgaaact agaacgctga gccccacaga gccgccagcg atgttaaact 480
 taaatgcccg gtgcgctcga g 501

<210> 114

<211> 419
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (119)

<220>
 <221> unsure
 <222> (392)

<400> 114
 gaattcggcc aaagaggcct agtgaatggg gtcagtactg caagcagctc ctggacggct 60
 tcacgggcct ccggctccag cacagcatat cgacgtagct gccggtcggg acaaatgtna 120
 gaaaagcgaa gaacaagaac tggagcccca gggaatggac ctgagccctc agacactggg 180
 tctccttggg tttcagtctc ggactctagc tcagctgccca ccagactctg tagctccagc 240
 cgctccagag tccgagctgc ttggagtcc acatcaaaca agtgggcaga agtgacccgg 300
 agaaaagcact ccttgccctg cacaccccca agtccttgca agggacatac caacatgggg 360
 cgacagagct cagcttccac tgccttctgc tncgtctcct cctcctcctc ctctctgag 419

<210> 115
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 115
 gaattcggcc ttcattggcct acttttccct tatcaacaac tccatcgtct acctgcactg 60
 caaactccgc gtctgcatgg aatcccccg agccacgtgc aaaatcaatt gcaataactt 120
 tcgggttgctg caaaatagtg aaacctctgc cacacaccag atgtcctggg gaccctcat 180
 ccggctctgaa gaagcaggcc tgggtgccgg ttatgtgggc cttattgtgg tggccatctt 240
 cgtgctgggtg gcgggaacag ccacccttct gatcgtgcgc taccagagaa tgaacggggag 300
 tctctgag 307

<210> 116
 <211> 289
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (91)

<220>
 <221> unsure
 <222> (198)

<400> 116
 gaattcggcc ttcattggcct aaagagattg gtaaataagc agttaaact caaagaagaa 60
 taaagtggag gtggataaga agcataagta ncattctgtg gctgtgaaga ggaaggagca 120
 attaaaagtg acttgaagat tagaattgtt catgtcttct tgttttttgt ttttgttttt 180
 tgagacattg tttcactntt gtcgccagg ctggagtgc atggcgcaat ctgagctcac 240
 tgcaacctcc acctccctgg cctcaagtga tccacccacc cgtctcgag 289

<210> 117
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 117

```

gaattcggcc ttcattggcct aatattttgt ttagcatttc tagttttcct cagtggatct 60
gtcatccag aaatggaagt cccctacata tattttctaa gcttttttga gttgggtttt 120
tggttttttt tccctccctt tctgcctctc tccctccttt tctctccct cctgcctct 180
tccgtccctt cctccctcc cgcctctctc tctccgtccc tccctttttt ctccctgcct 240
gcctgcctac ctgcagttgt ccgagcaggc attactgggg ctggagggtc cctttccaag 300
atggctcatt cacatggctt ccagctcgag 330

```

<210> 118

<211> 304

<212> DNA

<213> Homo sapiens

<400> 118

```

gaattcggcc ttcattggcct aaaaaaatt atttaatttg ctaatctttg tattctagt 60
tgctgccaaa gtgagcacat aattttgttt ttttgtttgt ttttgtttct taatgtttg 120
agaatttttg tgggtttttt gtttgttctt tgagacgtac tcccgccctg ttaccaggc 180
tggagtgcga ttgcgcgac tggtgtcact gcaacctccg cctcccggt tcaagcgatt 240
ctcctgcctc agcctccaga gtactgtgga ttacaggcgc ccgccaccac gccacagct 300
cgag 304

```

<210> 119

<211> 348

<212> DNA

<213> Homo sapiens

<400> 119

```

gaattcggcc ttcattggcct aggggaaatg aaacatttct gtaacctgct ttgtatcttg 60
atgttctgta atcagcaaaag tgtatgtgac ccgccttcac aaaataatgc agcaaatatt 120
tccatgggtc aagctgcttc agcaggaccc ccatctctga gaaaagattc gactccagtt 180
atagccaatg tagtatcatt ggcaagtgc cctgctgctc agcctacagt gaattctaac 240
agtgtcttac aaggtgcagt tccaacagta acagcgaaaa tcatcggtga tgcaagtact 300
caaacagatg cctgaaact gccaccttcc caaccccaaa ggctcgag 348

```

<210> 120

<211> 323

<212> DNA

<213> Homo sapiens

<400> 120

```

gaattcggcc ttcattggcct aaaagttgtg gcatattgct gtggccagca accagatgat 60
gtgtttctgc ttcctgggtc tttattacag gaaagatggt tgacatatca cagggccag 120
catccaggat ctgtgggaca gaccagcag gtggtgcccc atgtaagaag caatgaaatg 180
catcatgatg gaacctcaa aaacgaaagt gaagttactg cacaccctt aggtcctctt 240
tggattccag catgatgcat caaaccttac cacggcatga ctagggccca acctgctacc 300
agaataaag gaaataactc gag 323

```

<210> 121

<211> 329

<212> DNA

<213> Homo sapiens

<400> 121

```

gaattcggct aaagaggcct acaggaactg agcaagatct tccttcccct gaaaatagtt 60
ctgttaaaga ataccgaatg gaagttccat ctctgttttc agaagacatg tcaaatatca 120
ggtcacagca tgcagaagaa cagtccaaca atggtagata tgacgattgt aaagaattta 180
aagacctcca ctgttccaag gattctacce tagccgagga agaactctgag ttcccttcta 240
cttctatctc tgcagttctg tctgacttag ctgacttgag aagctgtgat ggccaagctt 300
tgccctccca ggacctgag gagctcgag 329

```

<210> 122

<211> 379

<212> DNA

<213> Homo sapiens

<400> 122

```
gaattcggcc aaagaggcct agtgagtctg ggagaacgtg aagatgtgta tgtatctaag 60
aagttttttt tgttttggtt tgtttttgag atggagtcta gctctgtcac ccaggctgga 120
gtgcaatggc acgaactcag cccactgcaa ccccgccctc ccgggttcac accattctcc 180
tgtctcagcc tcccagtagt ctgggaccac aggcattgag caccacaccc agctaatttt 240
tgtattttta gtagagacag ggtttttcca tgttggtcat gctgggtctg aactcccaac 300
ctcaagtgat cctcctgcct cggcctccca aagtgtctggg attacaggag tgagccactg 360
cgcccgccca gctctcgag 379
```

<210> 123

<211> 245

<212> DNA

<213> Homo sapiens

<400> 123

```
gaattcggcc aaagaggcct atgaattcta gacctgcctc gagtttcttg tttttcttct 60
ttattcttat tactatttct atggcctcca catttacttc cttttgcctt ctttctttcc 120
gttacactat taattctttc tacatcttga agtttctttt ccttctctct cctctctctg 180
caacccccat catacacaca cacacacaca catcatacac acacacacac acacaccac 240
tcgag 245
```

<210> 124

<211> 134

<212> DNA

<213> Homo sapiens

<400> 124

```
gaattcggcc aaagaggcct aatgaatata tatatatgaa aaaacaatat atatacatat 60
tgggtttgat actatccaca gtttcagtca tcaactgcag gtcttggaac tgtgactact 120
ataaggggct cgag 134
```

<210> 125

<211> 216

<212> DNA

<213> Homo sapiens

<400> 125

```
gaattcggcc aaagaggcct agtgggggtg ggaatctagg gtgtacttaa gatgtcttca 60
aatgttttta ttttattttt atgtatttat tttatttatt tatttatttt ttcagagaca 120
gaatctcggt tgggcacggt ggctcatgcc tgtaatccca gactctggg aggccgaagt 180
gggaagatcc ctcgaggcag gtctagaatt caatcg 216
```

<210> 126

<211> 344

<212> DNA

<213> Homo sapiens

<400> 126

```
gaattcggcc aaagaggcct aggagaaaga agcattgtgg ctttatatcc tctgggcctg 60
ggtttcctga agtcaccaca catagaggag agagaaaatg gctgagttaa agtacatttc 120
tggatttggg aatgagtgtt cttcagagga tctctgctgc ccagggtccc tgccagaagg 180
acagaataat cctcagggtc gccctacaa tctctatgct gacgagctct caggatcggc 240
tttcaattgt ccacggagca ccaataagag aagctggctg tataggattc taccttcagt 300
ttctcacaag ccctttgaat ccattgacga aggccacgct cgag 344
```

<210> 127

<211> 308

<212> DNA

<213> Homo sapiens

<400> 127

```
gaattcggcc aaagaggcct agtgagaaaa gcacactggt tcaattgcaa atttcaggca 60
accctgttgc ttctgacaaa ataatagttt gagtagcctc aggttcttggg tggcgtccct 120
ctcaaaaagt ctgttctctg gagttgtaat tatcaatggc tcttggtctc ttagaaaaag 180
taccagctt tcctttctac ttattgtttt tgttttgttt tttagagaca gggctctgtt 240
ctgctgcccc ggctggagtg cagtggcatg atcggaactc actgcagtct caaactcccg 300
ggctcgag                                     308
```

<210> 128

<211> 277

<212> DNA

<213> Homo sapiens

<400> 128

```
gaattcggcc aaagaggcct agtcacagtg aactgcaaag aagttattat agcagatgaa 60
tacaactac ttggtgactg gctggatcct tgaatgggtg tacagagctg tgatctggag 120
tgtggtctct ggagccaggc tgctccagtt tattttatct tattttatct tatcttattt 180
tgttttattt tattggagat ggagtctccc cattaccag gctgcagtgc agtggcatga 240
ccatggtcct ttgcagcctc aacgccaggc actcgag                                     277
```

<210> 129

<211> 185

<212> DNA

<213> Homo sapiens

<400> 129

```
gaattcggcc aaagaggcct aagtgtgttt tccctctttt agtttttgtg aaagctgggt 60
gttaaaaaga acctgggtacc ttctctctct cctcttgttt ccactctggt catgtgatct 120
ctatacacca gctccccctc accttctgcc atgagtgaag gcagactgag gccctcagcc 180
tcgag                                     185
```

<210> 130

<211> 352

<212> DNA

<213> Homo sapiens

<400> 130

```
gaattcggcc aaagaggcct agtcacacat aaaaccaatt aaattttatg tccacaataa 60
aatgcaaagt ctttgtgtgt acactcagaa ctattcccag ccacctctcc tgccattttc 120
ctgcaatatg atttatccta ggcatactga accgtcagtc agtctcctgg attgctatgt 180
atttgacat gcctcttctc tctttgtctg gctacatgtc atgcttcaaa cctcaggtga 240
gatgatagtt tctccatgta accttcaggt ggggctaggt accttgcac tgtgcttccct 300
tggcaccttg catttagctg catggctctg cagctcttcc actaaactcg ag                                     352
```

<210> 131

<211> 445

<212> DNA

<213> Homo sapiens

<400> 131

```
gaattcggcc aaagaggcct agcaatacat tcaataacat aactaaagaa cagaggccag 60
gcacagtggc tcacgcctat aatgttttaa ggcactctgt attacctttt tgcattttct 120
gagaaagact gtctaaagaa aaccacctga taaatgatga ataaatattt ttaatgaatc 180
tgtaggaaaa aagattactc ttaaaatgat ctacatttga aaaatttcaa tacattcaat 240
aacataacta aagaacagag gccaggcaca gtggtctcac cctataatcc cagcactttg 300
gaaggctgag atgggctgat caagaggtca ggtgttcaag accagcctga ccaatatggt 360
```

gaaaccctgt ctctactaaa aatacaaaaa tcagccagtc atgggtggtgc gcacctgtag 420
tcccagctac ttgagaggac tcgag 445

<210> 132
<211> 450
<212> DNA
<213> Homo sapiens

<400> 132
gaattcggcc aaagaggcct agattcattt aaaggattta caaattcatt aaccctgaa 60
aactaaagca aattgaacag gaaaaaaa aagaagatgg gttttttaag tccaatatat 120
gttattttct tcttttttgg agtcaaagta cattgccaat atgaaactta tcagtgggat 180
gaagactatg accaagagcc agatgatgat taccaaacag gattccatt tcgtcaaaat 240
gtagactacg gagttccttt tcatcagtat actttaggct gtgtcagtga atgcttctgt 300
ccaactaact ttccatcatc aatgtactgt gataatcgca aactcaagac tatcccaaat 360
attccgatgc acattcagca actctacctt cagttcaatg aaattgaggc tgtgactgca 420
aattcattca tcaatgcaac ccattctcag 450

<210> 133
<211> 322
<212> DNA
<213> Homo sapiens

<400> 133
gaattccgcc aaagaggcct aagctttctt ccttttgatt ctattccact gactgccttc 60
tgtttacaca atgagagtga tgctttcatt ctttatcccc aaaccaatca ggatcagatt 120
tgcaaaactca tcaggaaaaa atggaagaaa agggagtcct ctgaaatcaa gacttttcta 180
ctgcttcagt aacattaaaa ataaacagct aggagaggtt tttttgtttt tgtttttggt 240
tgtttttggc ttggggagtg tgggtggaag ggggttgctt aaatggtgtg caaggaaaat 300
caatacccaa ctaacactcg ag 322

<210> 134
<211> 422
<212> DNA
<213> Homo sapiens

<400> 134
gaattcggcc aaagaggcct aggttcacag ggtggttatt tcacttcgca gcttttctt 60
tctgaggcca gaaaaggaag ggtttgcct tcctctagta tttattcttc tggactacat 120
caagtactct aagcctgatg ttaggcaata actgccatt agccattggc tacatttgcc 180
tctttcttgt tccaacaata ttagtgatct gtggtacagg acacactctt tgtttgctag 240
ctacaaattc taacaaagct aagttttatt catgtagtta ttcacaaatt aaaacaacac 300
acacaccaca cacacacaca cacacacaca cacacacata ccacaaaacc 360
cagagatcac caaatactat ataaataaac aagcccaaag tcacagatca gggacactcg 420
ag 422

<210> 135
<211> 308
<212> DNA
<213> Homo sapiens

<400> 135
gaattcggcc aaagaggcct aagtcattat atctcatctg agttcttgca atagctccca 60
agttgggttt cttgcttcca tacttctctc tataaaactgc tcttagcaca gcagccaaag 120
cagtgaaaat aattaagctc atgccacttc tctgtcgaag cctcctttgg ctatgcgttt 180
tgctcagggg aagctggatc ccttacaatg ttgtacaggc cctacacaat ctgatccctg 240
ttacttctga ggctttatct ccaagtgcct ttctctctgc tcactctact cagccacacc 300
aactcgag 308

<210> 136

<211> 298

<212> DNA

<213> Homo sapiens

<400> 136

```

gaattcggcc aaagaggcct aaaagctttg gagatattga atcatgttac catttctgtt 60
tttttccacc ctgttttctt ccatatttac tgaagctcag aagcagtatt gggctctgaa 120
ctcatccgat gcaagtattt catacaccta ctgtgataaa atgcaatacc caatttcaat 180
taatgtttaac ccctgtatag aattgaaagg atccaaagga ttattgcaca ttttctacat 240
tccaaggaga gatttaaagc aattatattt caatctctat ataactgtca acctcgag 298

```

<210> 137

<211> 372

<212> DNA

<213> Homo sapiens

<400> 137

```

gaattcggcc aaagaggcct accctcttga ccccttaggt ttgattgcc tttccccgaa 60
acaactatca tgagcgcgag gctgcgggtg ttgtctccac ctcggtggcc gcggctgttg 120
ctgctgtcgc tgctctgctt gggggcggtt cctggcccgc gccggagcgg cgctttctac 180
ctgcccggcc tggcgcccyt caacttctgc gacgaagaaa aaaagagcga cgagtgaag 240
gccgaaatag aactatttgt gaacagactt gattcagtgg aatcagttct tccttatgaa 300
tacacagcgt ttgatttttg ccaagcatca gaaggaaagc gcccatctga aaatcttgg 360
caggcgctcg ag 372

```

<210> 138

<211> 190

<212> DNA

<213> Homo sapiens

<400> 138

```

gaattcggcc aaagaggcct actgtcttaa agaatttctt cctttggttt atttcatctt 60
tctactaggt cttttctctc agaattcaca cttgccctat tgtctcccat tttgaaaacc 120
ctgtcctttg acctgcata tttctgttgc tgtcatgttt ttctattctc tttcacaggc 180
attactcgag 190

```

<210> 139

<211> 204

<212> DNA

<213> Homo sapiens

<400> 139

```

gaattcggcc aaagaggcct acgagccggc agttgacatt tccaaatata aaatcgtgca 60
ttacagatgc tctctggatt gccagattt ctgttccaac gcagccactt tccattttta 120
ttttttatta tttcttttgaa acagagtctt gctctgtcac ccaggctgga ggcagggtcta 180
gaattcaatc gggttctccc tata 204

```

<210> 140

<211> 329

<212> DNA

<213> Homo sapiens

<400> 140

```

gaattcggcc aaagaggcct agcagtgcgc tgagataacg ccagtgcatt ccagcctggg 60
cgacaggggtg agactcttga ctaaacaaca acaaaaacaa caacaacaaa attaggaata 120
gagatctcgt tttgagagaa tttgagacct gttatctctt agtttttgcc ttttttccct 180
ctatctcaga ggaagccaat atctactgtt tgatgttagc tatctttaac atcattttta 240
aaaaaacctt attattagga agtatggtag atatatata atttttaccc ttctttttgc 300
taactgaaaa tatatgcgta gccctcgag 329

```

<210> 141
<211> 344
<212> DNA
<213> Homo sapiens

<400> 141
gaattcggcc aaagaggcct actcatccaa attgcttagt tccctctatt catgtacatg 60
tggatgggtac cattcatgct ttattactca tacgaaaatt tcggctttat ccttgactct 120
ccctcttcct cgttaccac atccatttag tctctatcta gtattttata taaccatecc 180
ctcatctcca ttctactec ctttacccta tgaaggccct caccattctt tccactagtt 240
attgttatag cttgttaact gtttttattc tcctgtctca agtctcattt tgctccaata 300
taacttccat atttttgcca aaacaatctg tctatacact cgag 344

<210> 142
<211> 330
<212> DNA
<213> Homo sapiens

<400> 142
gaattcggcc aaagaggcct aatgtaacaa acctgcacgt tgtgcacagg taccctagaa 60
cttaagtat aatttaaaaa aaaaattttt ttaagtata aacccaaaac aactgtctta 120
aaatacagt actcaaaata catgccccaa tgagtaggta ctcccaaate tggctaata 180
ctggaatgac ctaagaaccc tttttttcag tcctgataga ctctatctcc agggctagag 240
gcctaggcat ctgcatttta aagtccccca catgagtcct acggccaggc aagtttagga 300
accccagctt aatgtatctg ttgtctcgag 330

<210> 143
<211> 275
<212> DNA
<213> Homo sapiens

<400> 143
gaattcggcc aaagaggcct aatctgagtt tgtttttcaa agatcactaa atttttagtta 60
tgattatata acattttcca aaatgtgtgg cagtttttgc cctccttgct ctgagtggtg 120
gtgcactgga cacttttatt gctgcagtat atgagcatgc ggtgatatta ccaaacagaa 180
cagaaacacc tgtttcaaaa gaagaagctt tgctcctgat gaacaagaac atagatgttt 240
tggagaaagc agttaagctg gcagctttac tcgag 275

<210> 144
<211> 290
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (152)

<400> 144
gaattcggcc aaagaggcct actagacctg ccacaagtec aaactcctag ctttaatttt 60
gagtggtttt aacaaactgg cctctgttta tcattgttcc ttctagtact tccccagga 120
tgattgtacc ctcagcactc aagaccgctt gntgttcccc tacacacttt ttgttcaagc 180
tgtttggttt acctggaatg ctgtctttgc accttcttcc tggacctggt tcactcttgt 240
tgcccaggct ggagtgcaat ggcgcgatct cggcacactg caacctcgag 290

<210> 145
<211> 386
<212> DNA
<213> Homo sapiens

<400> 145

```

gaattcggcc aaagaggcct acagagaggc tgagaccaac ccagaaacca ccacctctca 60
cgccaaagct cacaccttca gcctccaaca tgaaggcttc cgcagcactt ctgtggctgc 120
tgctcatagc agttgccttc agcccccagg ggctcgctgg gccagcttct gtcccaacca 180
cctgctgctt taacctggcc aataggaaga tacccttca gcgactagag agctacagga 240
gaatcaccag tggcaaatgt cccagaaaag ctgtgatctt caagaccaa ctggccaagg 300
atatatgtgc cgaccccaag aagaagtggg tgcaggattc catgaagtat ctggaccaa 360
aatctccaac cccaaaccca ctcgag                                     386

```

<210> 146

<211> 133

<212> DNA

<213> Homo sapiens

<400> 146

```

gaattcggcc aaagaggcct agcagtgaat ggcacatggt atgtattcaa tgaacgttca 60
acaaatcttt gtttttatcc ttattattat ccttccttcc caccctctcc ttgctagaag 120
tcacaggctc gag                                     133

```

<210> 147

<211> 197

<212> DNA

<213> Homo sapiens

<400> 147

```

gaattcggcc aaagaggcct agccagtatt gtaatctaca actttttaaa attcactcat 60
ctgtcaagaa gcccaagaac aatcacctct ctaagatctt cagaatacaa aaaatgtatt 120
gttttaaggt tttttttttt ggttttttgt tttttggttt tttgagacaa ggtcttgctc 180
tgtcaccag tctcgag                                     197

```

<210> 148

<211> 446

<212> DNA

<213> Homo sapiens

<400> 148

```

gaattcggcc aaagaggcct agtttctggt ggtaaagaaa gatgaagacc tcttcggga 60
atggctgaaa gacacttggt gcgccaacgc caagcagtcc cgggactgct tcggatgcct 120
tcgagagtgg tgcgacgcct tcttgatgat ctctctggga agctctcaat cccagccct 180
catccagagt ttgcagccga gtagggactc ctcccctgtc ctctacgaag gaaaagattg 240
ctattgtcgt actcacctcc gacgtactcc ggggtctttt gggagttttc tcccctaacc 300
atttcaactt tttttggatt ctgctcttgg catgctctcc cgtctctttt tcccttgcca 360
gttccctggg gacagttacc agctttcctg aatggattcc cgcccccatg cctctttggc 420
cgattgaatt ctgacactgc ctcgag                                     446

```

<210> 149

<211> 422

<212> DNA

<213> Homo sapiens

<400> 149

```

gaattcggcc aaagaggcct aaaaagctca acttgaagct ttcttgctg cagtgaagca 60
gagagataga tattattcac gtaataaaaa acatgggctt caacctgact ttccaccttt 120
cctacaatt ccgattactg ttgctgttga ctttgtgctt gacagtgggt ggggtggcca 180
ccagtaacta cttcgtgggt gccattcaag agattcctaa agcaaaggag ttcattggcta 240
atttccataa gacctcatt ttggggaagg gaaaaactct gactaatgaa gcatccacga 300
agaaggtaga acttgacaac tgtccttctg tgtctcctta cctcagaggc cagagcaagc 360
tcattttcaa accagatctc actttggaag aggtacaggc agaaaatccc aagtttctcg 420
ag                                     422

```

<210> 150

<211> 300

<212> DNA

<213> Homo sapiens

<400> 150

```

gaattcggcc aaagaggcct aaactataga tacgactcta aggaccatcc cataagtagg 60
gcacataggg aatagaattc ataccagaat tttaggattt tattttacct tctaataat 120
aattagttct aaatgtgtgt taaccctttt tcccccaat ttaagggttt gtgttttcat 180
atcttatctt tttggattgc tcttataata atgaactctt cctgtatagg tatgaaatca 240
ccagaagaac aactggtgtg tgtgccacca caggaggcct ttcctaacga cgcctcgag 300

```

<210> 151

<211> 374

<212> DNA

<213> Homo sapiens

<400> 151

```

gaattcggcc aaagaggcct atattattta cctctgttac cctgtaggtc tctaaacttt 60
taagtagact tattttttaa aaagctacta tactcccttc tttctgaatc aaaaacattc 120
agagataaga attagatgga agtaaagctc cctgtggttt gtgtccatc acaatttttt 180
ttttttttt tttttttttt ttagtagagg cagggttttc ccatgttggc caggctagtc 240
ttgaactcct gacctcaggt gatccccctg cctcggcctc ccaaagtget gggattgcag 300
gggtgagcca ccacgccag ccttcatcac agttttttat ggaaacagaa tacaaagcag 360
caaggcagct cgag 374

```

<210> 152

<211> 347

<212> DNA

<213> Homo sapiens

<400> 152

```

gaattcggcc aaagaggcct aaaataagaa tatgaaaagt tgctcaatgt cattagctaa 60
ttgggaaatg caaattaata cctcaatgaa tatcactaca tacacaccag aatggccaaa 120
atttaaatga ctgacaatat caagtgttgg tgaaaatgtg gaagatctga aatgctcata 180
cattgctggt aagaatgtaa aatggtacag acacattgga aaaataattt ggcaatttct 240
ttaaaagtta aacattactc aacaatgaaa atataatatt attgatacac agcaacttgg 300
aggaatctct aatgctttat actgagttga aagaagctag tctcgag 347

```

<210> 153

<211> 222

<212> DNA

<213> Homo sapiens

<400> 153

```

gaattcggcc aaagaggcct attgaattct agacctgcct cgaattgtcc aaggaattga 60
atggggagct ggtgcatttg tactactact ctgttgctca ctgatgggca acagggtttt 120
tatccccagc ctttccaggc tgccccgggg agacagcagc tatggggagg caccaacca 180
tgggctgtac tcattccaga atccttcttc cctcactcag ag 222

```

<210> 154

<211> 458

<212> DNA

<213> Homo sapiens

<400> 154

```

gaattcggcc aaagaggcct agcctcgagt gacttggatt ttagtggtat aaccacagaa 60
atgtgtttta cttttcaggc tgcaggaaat ctgcagccat tctcccagcc aagttcgaca 120
cctatcttca ccaatatgag tagaattcag gccacggaga taacaagcct ataccactca 180
gaacagaaat ggtccttaat aatcatagaa tgattatgcc aaggaaatgg aaatccaca 240
acaatcctaa atctccttta aataagttac aatctcaccg ggcacgggtg ctctgtgctg 300

```

taatcccagc acttttgggag actgaagcag gaagattgct tgagaccagg agtttgagac 360
 caccctgggc aatatagcaa gaccctcttc tgcaaaaaaa attaaaaact tagctgggtgg 420
 tgggtgctcg taatcccaac taccctgggtg ggctcgag 458

<210> 155

<211> 353

<212> DNA

<213> Homo sapiens

<400> 155

gaattcggcc aaagaggcct atggaaaaca tgttccttca gtcgtcaatg ctgacctgca 60
 ttttctgctg aatatctggt tcctgtgagt tatgcgccga agaaaatttt tctagaagct 120
 atccttgtga tgagaaaaag caaaatgact cagttattgc agagtgcagc aatcgctgac 180
 tacaggaagt tcccaaacg gtgggcaa atgtgacaga actagacctg tctgataatt 240
 tcatcacaca cataacgaat gaatcatttc aagggtgca aaatctcact aaaataaatc 300
 taaaccacaa cccaatgta cagcaccaga acggaaatcc cgggtactctc gag 353

<210> 156

<211> 272

<212> DNA

<213> Homo sapiens

<400> 156

gaattcggcc aaagaggcct aagttagtaa gggatattta tagatttttt aaaatgctta 60
 gtgcacctcg ctatttcctc attatatgta tgtctaggtt tggccaagac catgccagggt 120
 caaaccttat ttggaatttc aaaacacgag aagaactgaa agatactctt gaatctgaaa 180
 tgagagcatt taatattgac agagaacttg gaagtgcaaa tgtgatctcc tggaaccacc 240
 atgagtttga ggttaaataat gagctgctcg ag 272

<210> 157

<211> 312

<212> DNA

<213> Homo sapiens

<400> 157

gaattcggcc aaagaggcct aaggtatata aaagtcctag cacagagcgt gtcataataat 60
 atggcttcac aagtaccctc atctccttcc cagtcgtttt ttgtttttgt ttttgttttt 120
 ttgagaccat ctactctgt tgcacaggct ggagtgcctc ttcattttta tttctttatt 180
 cagcaagtat tgatcaaatg tgctttgtac caggtactga gctcttcggt gggatataat 240
 ggtgatcaag gagattgtag attctggcag ggaaaactga catcaaacac gacgaccccg 300
 acctgcctcg ag 312

<210> 158

<211> 445

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (68)

<400> 158

gaattcggcc aaagaggcct agtctgctat gctttagtag cattctgtgt gtctttttgt 60
 caaagctntt aaaacgtatc attgtcctta ccaatcccca ctggactgta agcactctga 120
 gaatgggcac tctttctttt ctgtcgccag tgtctggcac gtagtagctg ttcagtaatg 180
 ctgagtatga caaactgtat tagtcatata gattaccaa gtgtatcttg gcacctaaga 240
 aaatgagtag gcaatgtgag gtgagtatac tttgaataat cttgaaatgc actacagtca 300
 catatgcacg tatgatttct gttatttggg taattctgtt ggatgattat ttactatgtg 360
 aaaatattgt cataaaatgt atgacacttt tattccttat tagattatgt tatatgtttc 420
 atagaatgat accgcttttc tcgag 445

<210> 159
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 159
 gaattcggcc aaagaggcct accagcaagg attggaaatc aacaagacaa ctgaatgaaa 60
 ctcagggtctg ttttcctcaa agtgtgggtcc tgggttcagg tgctcacatc ggaattacat 120
 aattgtgcaa aacttggact gccctgtgtc cctagagacc tcgag 165

<210> 160
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 160
 gaattcggcc aaagaggcct agagtaataa gtactgggac aataacaact acataactaat 60
 tattccaac attaaagaac agagggtttt tgttttttgt tttctagtag aaaaacctaa 120
 gtttagagtt cccaactttc atttttttct aatataattg agcaaaagca caacaaaaat 180
 gaatatatga tggtgatttt tgggtctcatt ttattttttt cttctttttt tcccactcat 240
 ggtactactg tgcattgtga cagggtcgag 270

<210> 161
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 161
 gaattcggcc aaagaggcct atgagaagag tggcgtagtt ttacatTTTT cctaaatctc 60
 cttaaggtct gccttaatat aaagcatcag ctgggtctctg cattctgtcg acagggatat 120
 gttgggggttt ttttggtttt tgttgctgtt gttttttgag acggagtctt gctctgtcgc 180
 ccaggctgga gtgcagtggc gctatctcgg ctcactgcaa gctccgcctc ccgggttcac 240
 gccattctcc tgcctcagcc tcccgagtag ctgggactac gggcgctctgc caccacacct 300
 ggctaattat tttgtatttt tagtgggact cgag 334

<210> 162
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 162
 gaattcggcc aaagaggcct actgaataac ataattgtgc cctttattaa gttgttacta 60
 ttattattttg tggagacggg gtctcactct gctgccaggc tggagagcag tggcgtagtc 120
 atagctcact gcgggctcaa gggatcctcc tgcctcagcc cccagttgcc aggactcgag 180

<210> 163
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 163
 gaattcggcc aaagaggcct aaaaatatat tttttactct gtgtcctcaa ttcccaggac 60
 aatgtctgtt cgacaaaagg tgagcgtga gtgtttgggg ttttttggtt gttttttgta 120
 ttttttgaga caggggtctcg ctttgccacc caggctggag tgcaagtgtg cacacatggc 180
 tcaactacagc ctctacctcc cgggctcaag ggatcctccc acctcagcct cccatgtagc 240
 tgggactaca ggtgtgcacc atcacacca gctaattttt gtattttttg tagagacgga 300
 actcgag 307

<210> 164
 <211> 361

<212> DNA

<213> Homo sapiens

<400> 164

```
gaattcggcc aaagaggcct agaaattaaa aagtcattca acttatagtt caggagagcc 60
attctttcat tgctcatctt ttgccctttt caaaatgagg ttgaccacag atgagtctag 120
ggaggggaat gacgtgggga tcgtgacttc tgcaggggta gtcttttcca cttttccct 180
gtccatctgt tttttcttct tcttttcttt ttttctgaaa gagactctcg ctctgttgcc 240
caggctagag tgcagtggca cgatcatagc tcaactgcagc ctccaactcc tgggcgcagg 300
tgatctctct gcctcagctc ctgagtggct gggacaaacg gcacatgtca ccactctcga 360
g 361
```

<210> 165

<211> 357

<212> DNA

<213> Homo sapiens

<400> 165

```
gaattcggcc aaagaggcct atgtgtatgg tatctgtgtg aattttgact gtttctcccc 60
tctcttcttt agtcattacc cctgtttttg gttcattcct atcagtaaac aatctctggt 120
agagacttgg taagaaaact caaccattcc cttaaaaaaa gtcagcctct accccttct 180
tagccagatg cttcagggat ggtctgcttg caacacttcc tgtccttcac cttctttcaa 240
ctgttttaacc tgccttattc ttttttttgt gagacggagt cttgctctgt ctcccaggct 300
ggagtgcagt ggcgcatgtt ggtcactgc aagctctgcc tcccggttc actcgag 357
```

<210> 166

<211> 149

<212> DNA

<213> Homo sapiens

<400> 166

```
ctcgaggatg tgccgtactg cctttaatat gtgcatgagt tactcatggg gaaaatgcct 60
tccctttctt tctttatact tttttttttt ttttgagatg aagtttctct cttgtcaccc 120
agactcgagg caggtctaga attcaatcg 149
```

<210> 167

<211> 410

<212> DNA

<213> Homo sapiens

<400> 167

```
gaattcggcc aaagaggcct agaataattc accagtaaaa ctgttcaggc ctggtgtttt 60
ctgttttaaa aggttaataa ctgttgattc aattttctaa tagatacaga tctattcaga 120
ttattgatat agtttcttta atagtttaaca gggttggtca gggtatctgt ttttctttgt 180
gagaactttg gtagattgtg tctttcacag aatattggct tatttcactc tactaaattt 240
ttggtgtaca gagttgttca tagtattcct ttgtgttact tttaatgtac ttgggataag 300
taatgatgac cctcttccca tttgttacat tagtaatttg tgccttctct ctttttcttc 360
ttttgttttt ttggagacaa agagtctcac tgtcacccag gcgactcgag 410
```

<210> 168

<211> 369

<212> DNA

<213> Mus musculus

<400> 168

```
gaattcggcc aaagaggcct agatatttga aagacgagtt tgttctacct agcaccctag 60
ctctagctct gtcagatacg ttaatgcata catcctctct aatgcattgt catttattgc 120
tgcagtttgg ttcttctgga gtattttcat catttagcta ttggaataca attatgaaaa 180
ccaactgttg aacatacttg gagtagctgt ttctttccta aagaaccaa gttgttttca 240
gctaatagaa caggttgaag tccgcctgca ttagctgtgt ttccctcat cttgttagag 300
```

ggatgcacag ggcacgggtga catcatttcc ctcatgttgt tagagggatg cacagggccc 360
 ggtgtcgag 369

<210> 169
 <211> 455
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (29)

<220>
 <221> unsure
 <222> (38)

<220>
 <221> unsure
 <222> (60)

<220>
 <221> unsure
 <222> (399) .. (402)

<220>
 <221> unsure
 <222> (408)

<220>
 <221> unsure
 <222> (423) .. (425)

<220>
 <221> unsure
 <222> (444)

<400> 169
 gaattcggcc aaagaggcct agagctttna aagtagangg taggggtgctt tctaattctn 60
 attatttgat ccaaatgtgt aaaacagtag ctctagactg gtgaagcatt tgggacacag 120
 ttggacattt taaaagccat ttctcaagct ttaagacatt tagtacagcc tttgcagtgc 180
 tcagcagagg cgccaatgca agcagaggcg cggccatgag gtcgggtgtcc gacactggcc 240
 gtggctggag agatgcagta atacttgtgg agtgtgagca gcagtggata ggacacgtga 300
 cgtgcacggt gccttgggag agcatgggct ggtcctgcag gactctgcat ctactgtga 360
 ctgtgcagca catttttaggc tgtgtttgaa tgtctcacnn nntactgntt agttgtcgaa 420
 tgnnngaata caagaaggag ctgngccagg tcgag 455

<210> 170
 <211> 358
 <212> DNA
 <213> Homo sapiens

<400> 170
 gaattcggcc ttcattggcct agatctgggt tgggttttct tttttaatta tccaaacagt 60
 gggcagcttc cccccccaca cccaagtatt tgcacaatat ttgtgcgggg tatgggggtg 120
 ggtttttaaa tctcgtttct cttggacaag cacagggatc tcgtttctct catttttttg 180
 ggggtgtgtg ggacttctca ggtcgtgtcc ccagccttct ctgcagtccc ttctgccctg 240
 ccgggcccggt cgggaggcgc catggctcgg atgaaccgcc cggccccggt ggaggacctg 300
 aagaagtacg gggctaccac tgtggtgcgt gtgtgtgaag tgacctatga ctctcgag 358

<210> 171

<211> 415
 <212> DNA
 <213> Homo sapiens

<400> 171
 gaattcggcc ttcattggcct acaagaagat ggtgtttctg cccctcaa at ggtcccttgc 60
 aaccatgtca tttctacttt cctcactgtt ggctctctta actgtgtcca ctccctcatg 120
 gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc cttggaataa 180
 aatacagctt cctgagtacg tcattccagc tcattatgat ctcttgatcc atgcaaacct 240
 taccacgctg accttctggg gaaccacgaa agtagaaatc acagccagtc agcccaccag 300
 caccatcatc ctgcatagtc accacctgca gatatctagg gccaccctca ggaagggagc 360
 tggagagagg ctatcggaag aaccctgca ggtcctggaa cccccccgc tcgag 415

<210> 172
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 172
 gaattcggcc ttcattggcct agcacgctgc cacacctagc tatgtatttc ttttttattg 60
 ccaagtattc cattatatgg atagaccaca tttatttagc cattcatcag ttggtggaca 120
 tttggaccac tcagtttttt acttccaagc ataaaagtct atgaagataa agtgattaaa 180
 gatgtttttt aaatgtgatt ttttaaaaag tgacattatc agtataatct atttcagcat 240
 atcaagtaat aattatcaat aaaaattcaa aaaccggtct ttttacagat actcgag 297

<210> 173
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 173
 gaattcggcc ttcattggcct acactgaaag ctagaaaaca atagagaagt atcttcaggc 60
 ttctgaggga aaattgtttc caaactagac caaacttatc aaatctaaga tagaataaag 120
 acattttcag atatgcgagt ccttccaaaa tttatccctt atgtacttgc tctaagggaag 180
 ctacttgatg tacaagcaaa gaaagtggaa gataatggaa tttgggaaat gggcacttca 240
 acacaagatg acacgacctg cctcgag 267

<210> 174
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 174
 gaattcggcc ttcattggcct aagcagaggc aaaagaatta accagctctt cagtcaagca 60
 aatcctctac tcaccatgct tcctcctgcc attcatttct atctccttcc ccttgcatgc 120
 atcctaataa aaagctgttt ggctttttaa aatgatgcca cagaaatcct ttattcacat 180
 gtggtttaa ac ctgttccagc acaccacgag agcaacagca cgttgaatca agccagaaat 240
 ggaggcaggc atttcagtaa cactggactg gatcggaata cactcgag 288

<210> 175
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 175
 gaattcggcc ttcattggcct aattcgttta tgagatggag tcacatgcca taggaaaaaa 60
 gcctgaaaaa tcagcagaca tgattgaaga aggggagctt atcctatctg tgaatatctt 120
 gtaccctgtt atatttcata agcacaaaga acacaaacca taccaaaaca tgctggtgtt 180
 gggcagtc aaactcacac aactgagggg ttcaattcga tgtgtcagtg acctccagat 240
 tggtggtgaa ttcagcaaca ctctgacca agccctgag cacatcagca aagtaagggt 300

atttcctccc ataaaacaaa aggaaataac aagctaagaa aatagcgatt actctagctg 360
 gttcataaat gtcccagtaa atccttttct tctcctgcgg gattccatca aactaccaca 420
 ctatctcgag 430

<210> 176

<211> 317

<212> DNA

<213> Homo sapiens

<400> 176

gaattcggcc ttcattggcct agagactctc agcaccctgc gatatgcaag ccgagctcag 60
 cgggtcacca cccgaccaca ggcccccaag tctcctgtgg caaagcagcc ccagcgtttg 120
 gagacagaga tgctgcagct ccaggaggag aaccgtcgcc tgcagtcca gctggacca 180
 atggactgca aggcctcagg gctcagtggg gcccggtggg cctgggcca gccgaacctg 240
 tacgggatgc tacaggagtt catgctagag aatgagaggc tcaggaaaga aaagagccag 300
 ctgcagaata gctcgag 317

<210> 177

<211> 349

<212> DNA

<213> Homo sapiens

<400> 177

gatgggactt aagttgaacg gcagatatat ttcactgac ctcgcgggtgc aaatagcgta 60
 tctggtgcag gccgtgagag cagcgggcaa gtgcgatgcg gtcttcaagg gcttttcgga 120
 ctgtttgctc aagctgggag acagcatggc caactacccg cagggcctgg acgacaagac 180
 gaacatcaag accgtgtgca catactggga ggatttccac agctgcacgg tcacagccct 240
 tacggattgc cagggaagggg cgaaagatat gtgggataaa ctgagaaaag aatccaaaaa 300
 cctcaacatc caaggcagct tattcgaact ctgcggcagc tggctcgag 349

<210> 178

<211> 576

<212> DNA

<213> Homo sapiens

<400> 178

gaattcggcc ttcattggcct agtaactctc gaccagagat gacatctggt cccacaactc 60
 atcagggtcta tgtacaatat ttcacatacc acccaataga taagataata ttaacagcaa 120
 ccattctcct ttatcaattc cccctgctcc aatacaacca ccacacattg cattaatacc 180
 ccaaaccat tccaattta ttaaataatg tgcaagctca tagacactta gaaggagcaa 240
 atctagtgtg gatgaagagt tcctagagct ctgggagcca agatggaggt ttccagtag 300
 ctgcacatgt ggctcaggag gatgctgccc aggagctaat gagttgggag agcaaactg 360
 ggaggtagaa gtcagatggc ccagctcagg gagctatctc tctcagcatc tcagctttga 420
 gactctgcca ccacctcttc ccagcccaag ctgctgccta aaccaggcat gttgaagggt 480
 gagcagtggt tgccatgaag ccaagaccaa gagattgctg agactccac tcccctccct 540
 cagactctag gcctgtgaca agccacacta ctcgag 576

<210> 179

<211> 320

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (57)

<400> 179

gaattcggcc ttcattggcct agttccatgg gaaattcata gacacgggtt tttcttnacc 60
 attctataag cgtatcttga acaaaccagt tggactcaag gatttagaat ctattgatcc 120
 agaattttac aattctctca tctgggttaa ggaaaacaat attgaggaat gtgatttga 180

aatgtacttc tccgttgaca aagaaattct aggtgaaatt aagagtcatt atctgaaacc 240
 taatggtggc aatattcttg taacagaaga aaataaagag gaatacatca gaatggtagc 300
 tgagtggagg ttgtctcgag 320

<210> 180
 <211> 583
 <212> DNA
 <213> Homo sapiens

<400> 180
 gaattcggcc ttcattggcct aactctgtcc aggtagaaat ggtgaggagg gggaagagaa 60
 ttacatttcc agggtcagaa acttggaac agttttccta gactgactca gacacaccac 120
 agtaacaact ctgctgcaa ttttatttta atttgagaaa taaagatttc ctccaagcca 180
 catgaggact ctggcaccac ccacaaagc aagacctgta tttataagcc gagggtctag 240
 ggagcctaac tgcgggaccc gtcaggggcc cgtgacccat ccccgteccc accccccct 300
 ccaccgctgg gcccatcagt gtgtgttggg gggatgcttg gcagctgggg gtgaggagac 360
 aacaaacctc gggaactgga gccagagctg cggcctgact gacgcctttt gatgctcacg 420
 ggaaatttct gccaggatc tcagcccccag gctggttgtt tctacaaatc tctctcaaat 480
 gtattatttt ggtgacaaaa atgaaggagc tttgtaaatt tttttaaaat tatgaatcat 540
 atcaagtagt tgtttacatt tcttgaaaaa agagcaactc gag 583

<210> 181
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 181
 gaattcggcc ttcattggcct acaagatttg caagatgctt atttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
 ttatcgcttct gaaatcacat actgccggag gctactcgag 280

<210> 182
 <211> 280
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (272)

<400> 182
 gaattcggcc ttcattggcct acaagatttg caagatgctt atttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
 ttatcgcttct gaaatcacat actgccggag gntactcgag 280

<210> 183
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 183
 gaattcggcc ttcattggcct acaagatttg caagatgctt atttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
 ttatcgcttct gaaatcacat actgccggag gntactcgag 280

<210> 184
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 184
 gaattcggcc ttcattggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggg cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
 ttatcggtct gaaatcacat actgccggag gctactcgag 280

<210> 185
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 185
 gaattcggcc ttcattggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggg cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
 ttatcggtct gaaatcacat actgccggag gctactcgag 280

<210> 186
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 186
 gaattcggcc ttcattggcct agttatgcgt gaatttgacc ctggcattat gatgttagct 60
 ggttattttt ctcgtagtt gatgcagttt cttcctggca tcaatggaat ttacaatttg 120
 tcatgttttg cagtggctgg tatcagttgt tcctttctat gtttatagtg cttccttcag 180
 gagctctttt agggcaggcc tgggtggtgac aaaatctctg agcatttgct tttttgtgaa 240
 ggattttatt tctccttcac ttatgaagct tagtttggtt ggatatgaaa ttctgggttg 300
 aaaattattt tctttaagaa tgctgaatat tggccccctt aggccatgaa ggccgattga 360
 attctagacc tgcctcgag 379

<210> 187
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 187
 gaattcggcc ttcattggcct agtccactt tctctgaaaa tttattcata ttgttaatta 60
 aatttgtttt tattatagaa ataatatatt gcatgatttg taaaaatgca gaggaacaga 120
 atggcacaaa attatgtaac cttttctatc tccccttggg gtacctcctt aatcatactt 180
 ctcagaacca ttgtcaataa tttgctggga gttcttctga tggttaccat cgtgactgat 240
 agattttatt cccaggttca agcggttccc ctgcctcagc ctcccagta tctgggacta 300
 caggcatgca ccaccactca gctcgag 327

<210> 188
 <211> 379
 <212> DNA
 <213> Mus musculus

<400> 188
 gaattcggcc ttcattggcct aattatgaaa agtattcctt tatactgtaa gtagtttagg 60
 aaactattaa tttttatgaa taatagaact tccttctgag gttttgattt aatcaagaag 120
 aacctggaca ttttgttgct attatagtat gttctataat ttgaaagctg cttacttca 180

tttatttgta atgtttttat tattacattt ccttttttac agtccagctg tatcttccct 240
 cccagtcccc cctcacacag ttccatcccc tgtctccaag ataatggccc cttaccaggt 300
 ctccccactc cctgggggtgt caagtctctc aagggttagg tgcacatctt cttccactga 360
 gaccagaaca aggctcgag 379

<210> 189
 <211> 301
 <212> DNA
 <213> Mus musculus

<400> 189
 gaattcggcc ttcattggcct acccttctct gaggatggac acttctcaca ctacaaagtc 60
 ctgtttgctg attcttcttg tggccctact gtgtgcagaa agagctcagg gactggagtg 120
 ttaccagtgc tatggagtc catttgagac ttcttgccca tcaattacct gcccctaccc 180
 tgatggagtc tgtgttactc aggaggcagc agttattgtg gattctcaaa caaggaaagt 240
 aaagaacaat ctttgcttac ccattctgcc tcctaattatt gaaagtatgg agtgcctcga 300
 g 301

<210> 190
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 190
 gaattcggcc ttcattggcct aaagaaacct ggataacatt gtcttgcaac agcctagaat 60
 aggtagcaaa aggaaatcta agaaagatgt ttatacaatc tttgatgcag aggtggagag 120
 cacaagtcca aagtcggaac aggattcggg aattctggat gtggaagacg aggaagatga 180
 tgaagaggta cctggggctc aagacttggt ggatttctct cctgtgtatc ggtgtctaca 240
 catatattct gtcctgggtg cccgtgaaac atttgagaat tactaccgaa aacagaggcg 300
 aaaacaggcc cctcgag 317

<210> 191
 <211> 295
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (215)

<220>
 <221> unsure
 <222> (222)

<220>
 <221> unsure
 <222> (233)

<220>
 <221> unsure
 <222> (237)

<220>
 <221> unsure
 <222> (241)

<220>
 <221> unsure
 <222> (245) .. (246)

<220>
 <221> unsure
 <222> (249).. (250)

<220>
 <221> unsure
 <222> (253)

<400> 191
 gaattcggcc ttcattggcct acacttggag atttctatgg gtggtttgct ttggtttggt 60
 tcttttatca ttaaaagaag aatgggagcc gggcgtggtg gcgcacgcct ttagtcctag 120
 cactcgggag gcagaggcag gcagatttct gagtttgaga ccagcttggg ctacaaagca 180
 agttccagga cagccagggc tacacagaga aatcntgtct cnaaaaaaca ganaganaga 240
 nagannngann ganagagaga gagagagaga gagagagaga gagacacccc tcgag 295

<210> 192
 <211> 307
 <212> DNA
 <213> Mus musculus

<400> 192
 gaattcggcc ttcattgcta gggccctgca gtcccagctc tgtgcaaacc taaccccag 60
 caacaccatg aagctctgag tgtctgccct ctctctctct ttgctcgtgg ctgccttctg 120
 tgtctccagg ttctcagcac caatgggctc tgacctctcc acttctctgt gtttctctta 180
 cacctcccgg cagcttcaca gaagctttgt gatggattac tatgagacca gcagtctttg 240
 ctccaagcca gctgtggtat tcctgaccaa aagaggcaga cagatctgtg ctaacccgtt 300
 gctcgag 307

<210> 193
 <211> 502
 <212> DNA
 <213> Mus musculus

<400> 193
 gaattcggcc ttcattgtag gccatggtga aatcactggt aaggagaaaa catctgaaat 60
 ggaattcaag tatctggtct tcattgtgct ttgtcaatac ctggacaata cgtttttctc 120
 agagacagaa gcaattacaa cagagcagca atcactgtct actttaatca caccgtcggt 180
 atatgttaca actgattctc aaaacacagc aggggaatgct ttgagtcaga caacaagatt 240
 caagaacatt tcttctggac agcaagcatc acctgcccac atcactctg aacaagcaac 300
 accagctggt tatgtctctt caagcccact tacttataac attaccagac aagcagaatc 360
 agcgggtcaac aactccttgc ctcaaacatc accatctggg ttcaacttga ccaatcagcc 420
 atcaccttct acctataatt ctactggaca accacacaaa catcttgtct atacttccac 480
 acaacagcca ccaatactcg ag 502

<210> 194
 <211> 427
 <212> DNA
 <213> Mus musculus

<400> 194
 gaattcggcc ttcattggcct acaagaggag cctagggagt ggcagctctc gctgaccggc 60
 ggggtcccaga gacctgcccc caaggtgtcc cactgtgtgg ctaagggtgg gatagaaccc 120
 gggctgggag agccgggtta tgggttccag tgggtggtcc gccgcttcc tgcctcgtc 180
 tgtcttaact cggcgttcag cctatttttc ctctgaagaa ttggacactt ttccgtgccc 240
 cttccatacc gcaggtggtg ttctagagag ctctcacgct ttccaaaagg cgtctcatct 300
 aagatttctg agaaccaacc tgactaaagg agtcaccgtc atacccccct tgcacctgga 360
 gtaaatctga ctgtccgaag gacgaaggac cgggtctgtg gcacttgtgc taagggtggac 420
 gctcgag 427

<210> 195

<211> 197
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (28)

<400> 195
 gaattcggcc ttcatggcct acaagttnac agtgcacacc aagaccacac tgtccacatt 60
 tcagagccca gagttttctg ttacaaggca acatgaagac tttgtgtggc tgcagacac 120
 tcttactgaa acaacggatt atgctggcct tattatccct cctgtcccta caaagccaga 180
 ctttgatggc cctcgag 197

<210> 196
 <211> 483
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (49)

<400> 196
 gaattcggcc ttgaaaagaa tagacctggc ttgtgaatta tggcctggnt ttcacttata 60
 ctctctctcc tggctctcag ctcaggggcc atttcccagg ctgttgtgac tcaggaatct 120
 gcactcacca catcacctgg tgaaacagtc acactcactt gtcgctcaag tactggggct 180
 gttacaacta gtaactatgc caactgggtc caagaaaaac cagatcattt attcactggc 240
 ctaatagggtg gtaccaacaa ccgagctcca ggtgttcctg ccagattctc aggetccctg 300
 attggagaca aggctgcctt caccatcaca ggggcacaga ctgaggatga ggcaatata 360
 ttctgtgctc tatggtacag caaccattgg gtgttcggtg gaggaaccaa actgactgtc 420
 ctaggccagc ccaagtcttc gccatcagtc accctgtttc caccctctc tgaagagctc 480
 gag 483

<210> 197
 <211> 364
 <212> DNA
 <213> Mus musculus

<400> 197
 ggaagaaccc atgggactcc caaggcggct gctgctgctg ctgttgtctg cgactacctg 60
 tgtcccagcc tcccagggcc tgcagtgcac gcagtgtgag agtaaccaga gctgcctggc 120
 agaggagtgt gctctgggcc aggacctctg caggactacc gtgcttcggg aatggcaaga 180
 tgatagagag ctggagggtg tgacaagagg ctgtgcccac agcgaaaaga ccaacaggac 240
 catgagttac cgcattgggt ccatgatcat cagcctgaca gagaccgtgt gcgccacaaa 300
 cctctgcaac aggccagac ccggagcccg aggcctgtct tccccccagg gccgttacct 360
 cgag 364

<210> 198
 <211> 464
 <212> DNA
 <213> Mus musculus

<400> 198
 gaattcggcc ttcatggaat tatggcctgg atttcactta tactctctct cctggtctct 60
 agctcagggg ccatttccca ggctgttctg actcaggaat ctgcactcac cacatcacct 120
 ggtgaaacag tcacactcac ttgtcgtcca agtactgggg ctgttacaac tagtaactat 180
 gccactgggt ccaagaaaaa ccagatcatt tattcactgg tctaataagg gtaccaaca 240
 accgagctcc aggtgttctt gccagattct caggctccct gattggagac aaggctgccc 300
 tcaccatcac aggggcacag actgaggatg aggcataata tttctgtgct ctatggtaca 360

gcaaccattg ggtgttcggt ggaggaacca aactgactgt cctagggcag cccaagtctt 420
cgccatcagt caccctgttt ccaccttcct ctgaagagct cgag 464

<210> 199

<211> 316

<212> DNA

<213> Mus musculus

<400> 199

gaattcggcc ttcattggcct aagggtctct gtctgtgtgt gtgtgcttat cctgtctggt 60
gattatacac cccttaactc ttaatttggt accatattga atggctctta tctgttctgt 120
tttaatcttt ttctcctttc tttgctgggc ttgacagtc ccatgtgaga catcctcgct 180
gcacccacgt gtctctgact ctcttccatt ttccatcctt tttgtttcca tgctttcaac 240
tgacagtgtc cttattccc atgtcttctga ctctcactc cgtgtctccc aaccgctgt 300
accgcttgt ctcgag 316

<210> 200

<211> 367

<212> DNA

<213> Mus musculus

<400> 200

gaattcggcc ttcattggcct ataggccatg aaggcggcc ttcattggcct acagagagca 60
acttagtgac tgaattctca ggacatagtc ttggcctcc atttgctcct ctccgcagag 120
tttgggtctc tcagttggtg tctgaagatg tgagaacaat tttagggtgc agagtttga 180
ggaatttata agaaaacact gtctttgctc tgcttgcat ttagtctctt ccttgacttc 240
tgactgggt tcattcgga cctctatttc gtacatggcc ctgtttctcc atccttatca 300
cataggcacc tcagcagaag tgctatgaca taggattaca gcaacgatgg cctcatcaat 360
cctcgag 367

<210> 301

<211> 438

<212> DNA

<213> Mus musculus

<400> 201

gaattcggcc ttcattggcct aggagctaag agaaagtaaa gtacttattt cagtccactt 60
ctgacagacc ttccactgt acctgcagcc agcccttctc caaggatgga cacttctcac 120
gcgataaagt cctgtgtgct gatecttctt gtgacctac tgtgtgcaga aagagctcag 180
ggactggagt gttaccagt ctatggagtc ccatttgaga cttcttgccc atcatttacc 240
tgccctacc ctgatggatt ctgtgttctc caggaggaag aatttattgc aaactctcaa 300
agaaagaaag taaagagccg ttcttgccat ctttctgccc ctgatgaaat tgaaaagaag 360
tttatcctgg atcctaacac caagatgaat atttcctgtt gccaggaaga cctctgcaat 420
gcagcagtcc cactcgag 438

<210> 202

<211> 321

<212> DNA

<213> Mus musculus

<400> 202

gaattcggcc tcatggccta caaagtagag gaactgctaa agaaccocct gaagattcta 60
gtgctgatta actgcctggg catgtacgac tggctccctg ccaacaaatg cgtcctccac 120
atgttggttt ttggaaccac agttttcgtt tctggttctg agaagcattt caagtacctt 180
gagaagatct atagcctgga gatttttggc tgttttgctc tcaccgaact gagtcatggg 240
agtaatacca aggccatgag aacgcagact cactatgac ctgatactca ggaattcacc 300
ttacattccc cggatctcga g 321

<210> 203

<211> 307

<212> DNA

<213> Mus musculus

<400> 203

```

gaattcggcc ttcattggcct acaaaattgg caagatgctc attttcggag ccatatttgg 60
ctgtctcgaa ccagtggcaa cactggcagc cgtgatgaca gagaagtctc cattcatcac 120
accaattggg cgaaggatg aagcggacct tgcaaagtcg tctttggctg tggccgactc 180
ggaccacctc acgatctaca atgcttatct aggggtggaag aaagcccagc aagaaggagg 240
cttcgctctc gagatctcat attgccagag gaacttccca aacagaacgt cactgttgac 300
actcgag                                     307

```

<210> 204

<211> 278

<212> DNA

<213> Homo sapiens

<400> 204

```

gaattcggcc ttcattggcct aggacaactg gtaaaacttg aatggggctc gagaattagc 60
tggtagtaat gtcactgtgt taacatttta attttaaatag ttttatattg tggttatata 120
ggagattatc ctggttcata ggaaatacaa agtttcaagg ggttgggact atcatatctg 180
caacttaatc ttgtgaaagg aaagtaagtc ttgggacccc aaaatcatta aactaaaggg 240
ataagtcaag ctggaaactg cttcgggtcaa acctcgag                                     278

```

<210> 205

<211> 436

<212> DNA

<213> Homo sapiens

<400> 205

```

gaattcggcc ttcattggcct acgaacagga gagactaccg gcgaagagga aatctttcct 60
gaaggaggag actgctgatg gataaatcct gggaaaaaat cagccaagtt cttcaagtct 120
ataacgtggc acctgatect tgacctagct tgctgacatc ttttgaaagt ggggtagttc 180
tgcaaggtga agatcaagca ccagcagatt tgggtactat tgagggccta ttcttggttc 240
atagatgtca ccttctggct gtttctcac atggtggatg gagcaagcta gccctctggg 300
gtctctttta taaagtctgg ccgggacctt caacaatata agagtcaggc taagcaactc 360
tttcgaaagt tgaatgaaca gtccccctacc agatgtacct tgggaagcagg agccatgact 420
tttcactact ctcgag                                     436

```

<210> 206

<211> 467

<212> DNA

<213> Homo sapiens

<400> 206

```

gaattcggcc ttcattggcct acttctctgta attccagcac tctgaaaggc ccaggcagga 60
ggatcatttg agcccaggag tttgagacca acctgggcaa aagggcaaga ctcagtctct 120
gccaaaaaaa aaaaaaatta gttgggcatg gtgctgcaca cttacattcc cagctactca 180
ggaggctaag gcaggagaat cccttgagcc ctggaatttg aggcagcagt gagctatgat 240
tgcaacactg cactccagcc tgggcaacaa agcaggtccc tgtctcttaa aaaaaataa 300
acagaagtcc tagaaaagtt tgtgtgttga tttactttta cattaaaagt atatggcatg 360
ttgagcagcg taaatataga aaagtgtagg gaagactgag caggaagtac tcctttggga 420
ctgaaagacc tcaggaagtc ttattccttt gatggcacia tctcgag                                     467

```

<210> 207

<211> 260

<212> DNA

<213> Homo sapiens

<400> 207

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gaattcggcc ttcattggcct agttttataa gccaatTTTT ggagtaaaaa gtgaagcatt 60

```

tgacttttca ttttcagaat ttgttccctt attgggcagc aaacctcagc ctcaatatgc 120
 atatttcttt gtatttcttt tctatttttg gggacagtgt ctcattctgt caccaggt 180
 ggagtgcagt gacacgatca tggctcactg aaacctcaac ttccttggt ctagtaatcc 240
 tcccacctcg gcctctcgag 260

<210> 208

<211> 362

<212> DNA

<213> Homo sapiens

<400> 208

gaattcggcc ttcattggcct agttccccca caaattcatg cagatacaat tttggagagg 60
 atttctctcc agctctagat ataggcctgt aggagcctgg tcattctgta tttcccttac 120
 aaagaattct cgtaggctcc agaagtacct ggatgcttca tgaaatttta attggacatt 180
 tcttaaaata tcaattcatt aaatcgtgtg tgcttattta catggtggat agttctacaa 240
 tatggctccc ttttctgccc ttgaaaacca tctttgtggc cgggcacggg ggctcatgcc 300
 tgtaatccca acactttggg aggctgaggt ggggtgatca cctgggggta ggagtctcg 360
 ag 362

<210> 209

<211> 328

<212> DNA

<213> Homo sapiens

<400> 209

ggagctgcgc atggatttta tatttgaaga catggatctt gctgccaacg agatcagcat 60
 ttatgacaaa ctttcagaga ctgttgattt ggtgagacag accggccatc agtgtggcat 120
 gtcagagaag gcaattgaaa aatttatcag acagctgctg gaaaagaatg aacctcagag 180
 accccccccg cagtatcttc tctttatagt tgtgtataag gttctcgcaa ccttgggatt 240
 aatcttgcct actgcctact ttgtgattca acctttcagc ccattagcac ctgagccagt 300
 gctttctgga gctcacacgg cactcgag 328

<210> 210

<211> 487

<212> DNA

<213> Homo sapiens

<400> 210

gatttgaca gttcttgcca gaataaatgc cattatctgt atgtttcagg gagttcccca 60
 atttgatcat ttttgtgtgt gtgtggtgtg tgtgtgagag agagagatac tgcagtaaaa 120
 catttctaaa ggatgaaagc tcttgtatgg catagatatg aattccttcc tctggtaata 180
 attagggtat tcccagaagc acagtgtcat tctttaaata aaagctttcc tgtttaaagc 240
 ttttcaaaag agcagaccac cttgaagatt cccctaggg ttgatatgtg tctaattcat 300
 tttataaaaa ttattcttgt cttcatttta aagctttggc tatatagtca gaaatgtcct 360
 aaataacaaa ctattttgta ttttaatttag ggaagactaa agggaagaaa aatgaaaact 420
 cagcttttat gtaagctcca aggatattag ggcttaaagg gcttttctag ttttatgaga 480
 tctcgag 487

<210> 211

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (108)

<220>

<221> unsure

<222> (121)

<220>

<221> unsure

<222> (137)

<220>

<221> unsure

<222> (357)

<400> 211

```

gaattcggcc ttcattggcct agttttatat atatagatat atagatacac acacacacac 60
acacacacac acacacacac acacacagat tctgaattat acatgganac acaaactaga 120
ntggccaaaa caatttngag aaagaacaat aatttggagt actcctatta tctaattgta 180
agaatgacta taaagctaca gtaattagt ctatattgac aaaaggctag ccacaaacct 240
atgaaacaga aacaagtcca gagatacacc cataaaaata tggtaaaactg atacttgaca 300
tgtccaaaaa caatgaatgc aaaaaggata atcttttcaa caaatgggat tggaacnatt 360
ggacattcac atactctccc cccctcgcag 390

```

<210> 212

<211> 322

<212> DNA

<213> Homo sapiens

<400> 212

```

gaattcggcc ttcattggcct aaattggcgg ggtgtggtgg cgcattgctg tgggtcccagc 60
tacttgggag gctgaggtgg gaggatggcc tgggcccagg aggtggaggt tgcagtgagc 120
cttgatagca ccaactgcact ccagcctggg tgacggagcg agaccctgtc tcaaaacaga 180
caaacaagca aaaaataggt taaagtctgg atttcaactga tttcttggct taataagttt 240
tttaaaacca cgatgctgca attttttccc tctcaagctt cttgaaaatg tgtgatttac 300
ccttttttat ctattactcg ag 322

```

<210> 213

<211> 290

<212> DNA

<213> Homo sapiens

<400> 213

```

gaattcggcc ttcattggcct aagaaaactt tcagccagaa atagccaaag tcaactcttg 60
tcacacacac aaactttgat tctcaccaca acacacattt cactctttga ttctcttttt 120
tcccagttag ttgttggtcg aatgatcagt ctatttattt tatatatatc taggcattca 180
catatccatt catctacttc tctttctatc cacctactta tgtatccatc catccatcca 240
tccatccatc cattcatcca ttcaccattg aattctagac cagcctcgag 290

```

<210> 214

<211> 216

<212> DNA

<213> Homo sapiens

<400> 214

```

tgaggagcat ggtcgccaat cccacagctc ctctctcttt gccagtggca ccctccagga 60
cacgtggagg ttgctagacc tgggatccag cccttctggt gtcacctccc agggtgactc 120
aactccagag ctcccagctc ctccagcagc cgacaggagg cccgtcaaga tgcaggcagg 180
tattgccacc ccagggatga agacagcacg ctcgag 216

```

<210> 215

<211> 442

<212> DNA

<213> Homo sapiens

<400> 215

```

gaattcggcc ttcattggcct actcttagat agaaaactgg accagcctct acggatgtcg 60

```



```

atgctctgtt tcttggtttt gcttctctgt aaatctgagg gagaagacag gaaggacctg 120
gggtgcagcc cttctttgcc tgtctcatag gagatcctca cctcactttg tgaaaaccca 180
tgctgtctgt aatgatccca aaagctgctg caaaatacct caatataaaa gacatgttaa 240
cctggacgtg gtggctcacg cctgtaatcc cagcactttg agaggccgtg gggggtggat 300
cacttctttg gtcacctgaa gtccaggact tcaagaccag cctgggcaac acggcaaaac 360
cccatctcta ccaaaaaata caaaaattat tcaggcatgg tggatatatg atatagtccc 420
agctactagg acgaggctcg ag 442

```

<210> 216

<211> 313

<212> DNA

<213> Homo sapiens

<400> 216

```

gaattcggcc ttcatggcct actgaggcag gagaatggcg tgaaccacag aggcgggggt 60
tgacgtgagc cgagattgag cgactgtact ctagcctggg tgacagagcg tgactccatc 120
tcaaaaaaaa aaaataaaat aaaaaactaa atgttaaaag gagatttctt ttaatagaga 180
aagtagtcgt ctttttttgt tattcttttt ttcttaatat gctttaagtt agtccataga 240
atggactttg ttctttttgg ggtaaatagc taaaatattt aaagcaatga aactgaaagg 300
gtcagtactc gag 313

```

<210> 217

<211> 284

<212> DNA

<213> Homo sapiens

<400> 217

```

gaattcggcc ttcatggcct atgaattaac agcttctcta ttgatattt gaaattcttc 60
tgtaagcctg tctgagtgtg tgtggaaacg attgtcaa atctaaatata tatatattaa 120
aaagtaggaa attgtcctag cttaccctaa atttcaaac tgagttgatt ttgtgatttt 180
attgcttata acagagaact catatttgac atattttttt cattgatgtg ttcttggttag 240
attttcacga atgagctggc aggtctaatc ggggagccct cgag 284

```

<210> 218

<211> 326

<212> DNA

<213> Homo sapiens

<400> 218

```

gaattcggcc ttcatggcct agaacctggg ccgcatgtat ctcttctatg gcaacaagac 60
ctcgggtgcag ttccagaatt tctcaccac tgtggttcac ccgggagacc tccagactca 120
gctggctgtg cagaccaagc gcgtggcggc gcaggtggac ggcggcgcgc aggtgcagca 180
gggtgctcaat atcgagtggc tgccgggactt cctgacgccc ccgctgctgt ccgtgcgctt 240
ccggtacggt ggcgccccc aggcctcac cctgaagctc ccagtgaacca tcaacaagtt 300
cttccagccc accgagatgg aggcag 326

```

<210> 219

<211> 530

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (379)

<220>

<221> unsure

<222> (414)

<220>

<221> unsure

<222> (429)

<220>

<221> unsure

<222> (437)

<400> 219

```

gaattcggcc aaagangcct attgaagaag aagagagAAC cttaccatgc tattagagca 60
tgctgattca agttctactt ctgggtgaaag ttctagtgc acaagcagca acttctctca 120
gggtctagtag agtcagagat cagttccctc tgtataattt acagagaatt tttaaacttg 180
cggggaaaga tgtacgacct agattgtata gggagaaggg agcgtcttag ctgcatagtt 240
ctaatttgta taagcaccat gccatgtttt tcattgtttg ccctttatat atgaaaatac 300
ttacacttaa aagcattggt gtttagtttc aaaatctcaa cttaatacca ttcacaaatt 360
taataagggc gttgtcatna cataaaacta attgggaaat aatcccatct atcnggacag 420
ttctctggna tagtaanaca tgcgttctct aagcttctac cttttaaaca gctttgttct 480
aattactccc tttgtacctt tccatttctc agtaaaatta catactcgag 530

```

<210> 220

<211> 507

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (360)

<400> 220

```

gaattcggcc aaagagccaa cactgagcaa atcagccgcc gacagtccca agtggatcgc 60
ctctatgtgg cgctcaagga gctgggagag gaacgcaggg tgagcctgga acagcagtag 120
tggtcttacc agctcagccg ccaggtggat gagctggaac actggatagc cgagaaggag 180
gtggtagctg gctccccaga gctgggagag gacttcgaac acgtgtcggg gctacaggag 240
aaattctcag agtttgccag tgagacagga accgcagggc gggagcggct ggcggcggtc 300
aaccagatgg tggacgagct gattgagtgt ggtcacacag cagcggccac catggctgan 360
tggaaggagc ggctgaacga ggcctgggct gagctgctgg aactcatggg caccggggcc 420
cagctgctcg ctgcctctcg ggagctgcat aagttcttca gcgatgcccg ggagcttcaa 480
gggcagattg aggagaggcg actcgag 507

```

<210> 221

<211> 382

<212> DNA

<213> Mus musculus

<400> 221

```

gaattcggcc aaagaggcct atcgagccct ggccaactcc gacgggtgcg gaagtagtcc 60
tagttcaagc cccgtggagc tccggtggcg gtctcgggcc ccagccagcc caggggttag 120
gtaggggagc ctacgggggc tctgggccc accaggaag gagccgtgga ggctgacgtg 180
ctcgctactc tcccaaccca agatccgagg cggcgtcagg cctcgtgcag ccgggtggtc 240
tcagctgtgc aggtcccaca gacctgttca tcctccacac ccgctgcacc aggtggcgt 300
ttaaggggag aaggtccaga gaggggtgag gtgtggagag gatgccccaa ctgcagggtt 360
ctgagttttg gggccgctcg ag 382

```

<210> 222

<211> 194

<212> DNA

<213> Mus musculus

<400> 222

gaattcggcc aaagaggcct aggtaaagtg ggcagaaaaa acagagagca ggaaatgttt 60
 tatttatcct tttttggttt gtttggtttg gttttgtgtt ttcaagacag ggtttctctg 120
 ggtaaccttg gctgtcctga aactcactct gtagaccagg ctggccttga actcacagat 180
 cccactgtct cgag 194

<210> 223

<211> 477

<212> DNA

<213> Mus musculus

<400> 223

gaattcggcc aaagaggcct agacacggtg gcttccgaca tgatggttct cctgaaatcc 60
 ttctttgatt gccataaaga attccagacg gttccattct acattttctc agaatcctac 120
 ggaggaaaga tggctgctgg catcagtgtg gaactttaca aggctgttca gcaagggacc 180
 attaatgtca acttttctgg ggttgctttg ggtgactcct ggatctcccc cgtggattca 240
 gtgctgtcct ggggacctta cctgtatagt atgtctctcc ttgataatca aggcttggcc 300
 gaggtgtccg acattgcaga gcaagtccct gatgctgtaa acaagggctt ctacaaggag 360
 gccactcagc tgtgggggaa agcagaaatg atcattgaaa agaacaccga cgggggtaac 420
 ttctataaca tcttaactaa aagcagcccc gagaaagcta tggaatcgag cctcgag 477

<210> 224

<211> 389

<212> DNA

<213> Mus musculus

<400> 224

gaattcggcc aaagaggcct acggtgaagc aagagctgcg tgggcctga gtgggggagg 60
 gacggcagcc cttggagttc caccagtgcc ctctgccggc aggagaggag ggggagtatg 120
 tcctggcact gaagcaagag ctgcgcgggg ccatgaggca gctcccctac ttcacccggc 180
 cagccgtccc caagagagat gtggaacgtt actcagacaa gtatcagatg tctgggccta 240
 ttgacaacgc catcgattgg aaccttgatt ggcggcgact ccccagtgag ctcaagattc 300
 gagtgcggaa agtacagaag gagcggacca ccattatcct tcccaagagg ccccctaaga 360
 gcacagacga taaggaggag taactcgag 389

<210> 225

<211> 423

<212> DNA

<213> Mus musculus

<400> 225

gaattcggcc aaagaggcct attatagagt atgtggtttg ttgtcaaagt cttgaggctg 60
 ttgctgttag aattaacaga ggcactaaaa ttggaaggaa aaaaagcttt atttgaaaaa 120
 aatggagatg ggaataatac agtgagatc gtgaatacat ggactcagag ctgtgttgat 180
 gggagatcta ataattggaa ttctgaaatg tgtggtcact ttctcttctc gctcttgggg 240
 atgatttaca ttttaaagcc aaggaggcaa aagagaaaga aacagcaaag tgtggtgaag 300
 tggaactcaa aacatttata ttttaatttt catagtgtccc tgtatttgtg ggtctctctc 360
 ttcaagccat ctgctgcctc tgaaggcatt tccaccagg cttcttgtcc ccaccaactc 420
 gag 423

<210> 226

<211> 379

<212> DNA

<213> Mus musculus

<400> 226

gaattcggcc aaagaggcct agagacggtg gacaagcgcg agaaactggc ggagggcgcg 60
 accgtggtca ttgagcattg tacgagctga cgcgtgtacg gccgccatgc tgcctgcttg 120
 agccaggctc tgcaactgga ggccccagag ctacctgtgc aagtgaacct gtccaaacctg 180
 cggaggggca gcttcgaggt gacgctgctg cgctcggaca acagccgtgt tgaactcttg 240

actggtatta agaagggccc tccacgaaag ctcaaatttc ctgagcctca agaggtggtt 300
 gaagaattga agaagtacct ttcataaaga ggttgggaaa gagtccctcat gttgagcttt 360
 cagtcctctg aggctcgag 379

<210> 227
 <211> 113
 <212> DNA
 <213> Mus musculus

<400> 227
 gaattcggcc aaagaggccg tcggggaaaa aaagagcgag agcgccagct atcctgaggg 60
 aaacttcgga gggaaccatc tactagatgg tcccccca agtttcctc gag 113

<210> 228
 <211> 379
 <212> DNA
 <213> Mus musculus

<400> 228
 gaattcggcc aaagaggcct atttgcacta agtctagaga gttctagtca atcatagtta 60
 gagtagatta gtttatacat taggtcaata ttcagttatc agtgagggat cttaggaagg 120
 ggagctctac agattgtacc tgttactagt gattttggca ggaagggtta actattcata 180
 taagctttta attatttaat gaagattaat ttctggtatt agtttgattc ttcttccaaa 240
 tttattatta aagccagtta ggaagggtta gggattacta ttattgaatc tcatactgtt 300
 atattacaac atgttagcag atctgtcttt aaattttgtt tgtttttttg cttttgtagg 360
 ttgccatgga gtccctcgag 379

<210> 229
 <211> 410
 <212> DNA
 <213> Mus musculus

<400> 229
 gaattcggcc aaagaggcct acaaaaggac ttttgataac agtttcaaga ttgtcagcat 60
 tttgcattgg acttgagctg aggtgctttt aaaatcctaa cgactagcat tggcagctga 120
 cccaggtcta cacagaagtg cattcagtga actaggaaga caggagcggc agacaggagt 180
 cccgaagcca gtttggtgaa gctaggaagg actgaggagc cagcagcagc agtgcattgt 240
 gaagatagcc caggaaagag tgccggttcgg tggaggaagc taggaagaag gagccatagc 300
 gatgtggtgg tgaagctggg aaagggttcc aggatggtgg agcgagagcg agttggtgat 360
 gaagctagct ggcggcttgg cttgtcaact gcgcggaaga ggtactcgag 410

<210> 230
 <211> 367
 <212> DNA
 <213> Mus musculus

<400> 230
 gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggcctaacc 60
 tgccttgcca ccctggccac agtgctgctg gctctggcca gaagaagccc ccaggcacag 120
 atgcagatca agcaacagaa ttctggggtg aggtgcccag gcacctttta agcaaagcct 180
 acaggtctg gacatcccca tctacagaaa gtccactaca accaagagga caagctccct 240
 cctgggcagg ctaaggaaact gccagggtt caagggtgtc agtgtttcgt actctcagga 300
 tcctatctag ttcagtccca gccctcagtg ggctaggtca gtgtggctgg cgctcagtg 360
 tctcgag 367

<210> 231
 <211> 393
 <212> DNA
 <213> Mus musculus

<400> 231

```

gaattcggcc aaagaggcct aggatgtggg ggtgctgctg ggcagagctt cctacctgt 60
ggagtcctgc cgtgctccg tgcgtcccg gggcatggca gagacatctt gaccgcggcg 120
tccgcttctg cgcgcgtggg tgagctcgct gggggcggcg gccgtgactg gcggacgctg 180
aacagagaaa cacgggttag actttccatt cagcccccaca gaaaaactta caacaaaatt 240
ataaattaaa ttaaattaag aattaaatta caaataagga caagaataat tagggcagaa 300
accatagctg cggctaaaag agaaaccctg tctccaaaat caaaaattaa aattaaaaaa 360
taaaccctaa tgaaaataag aataatactc gag 393

```

<210> 232

<211> 650

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (286)

<400> 232

```

gaattcggcc aaagaggcct actcagaaaa cacagagctt tagctccgcc aaaatgaaac 60
actcattaaa cgcacttctc attttcttca tcataacatc tgcgtggggg gggagcaaag 120
gcccgcgtga tcagctagag aaaggagggg aaactgctca gtctgcagat ccccgatggg 180
agcagttcaaa taacaaaaac ctgagcatgc ctcttctccc tgcgacttc cacaaggaaa 240
acaccgtcac caacgactgg attccagagg gggggaggac gacgantatc tggacctgga 300
gaagatattc agtgaagacg acgactaaca tcgacatcgt cgacagtctg tcagtttccc 360
cgacagactc tgatgtgagt gctgggaaca tctccagct tttccatggc aagagccgga 420
tccagcgtct taacatcctc aacgccaaag tcgctttcaa cctctaccga gtgctgaaag 480
accaggtcaa cactttcgat aacatcttca tagcaccgt tggcatttct actgcgatgg 540
gtatgatttc cttaggtctg aagggagaga cccatgaaca agtgcactcg attttgcatt 600
ttaagactt tgtaaatgcc agcagcaagt atgaaatcac gaccctcgag 650

```

<210> 233

<211> 465

<212> DNA

<213> Mus musculus

<400> 233

```

gaattcggcc aaagaggcct aaagaaacaa gaggtgggag attgtcaaat tcagtatccc 60
agttgctctc tgattcttgg tgaaaccatc cctcagctcc tagagggaga ttgttagatc 120
atgaaactaa ttaccatcct ttctctctgc tccaggctgc tactaagttt aaccaggaa 180
tcacagtcctc aggaaattga ctgcaatgac aaggatttat ttaaagctgt ggatgctgct 240
ctgaagaaat ataacagtca aaaccaaaag aacaaccagt ctgtattgta ccgcataact 300
gaagccacta agacggttgg ctctgacacg ttttattcct tcaagtacga aatcaaggag 360
ggggattgtc ctgttcaaag tggcaaaacc tggcaggact gtgagtacaa ggatgctgca 420
aaagcagcca ctggagaatg cagggcaacc gtggggttac tcgag 465

```

<210> 234

<211> 304

<212> DNA

<213> Mus musculus

<400> 234

```

gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcaccttcc tctccccac acttttctg aggggtgacag ccagagaacc 120
agtctttgta gagaaaaacc cttttgtaca gcatatagta gaatctcaat acatggaatt 180
aagagaaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag 304

```

<210> 235

<211> 570
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (32)

<220>
<221> unsure
<222> (168)

<400> 235
gaattcggcc aaagaggcct acgagagagg angtgctgca agactctctg gtagaaaaat 60
gaagaggggc ctgggtactac tgcttgctgt ggcattttga catgcttttag agagagccgg 120
gattatgaaa agaataaagt ctgcaaggaa ttctcccatc tgggaaanga ggacttcaca 180
tctctgtcac tagtcctgta cagtagaaaa ttcccagtg gcacgtttga acaggtcagc 240
caacttgtag aggaagtgtg ctccctgacc gaagcctgct gtgcggaagg ggctgacct 300
gactgctatg acaccaggac ctccagcactg tctgccaagt cctgtgaaag taattctcca 360
ttccccgttc acccaggcac tgctgagtgc tgcaccaaaag agggcctgga acgaaagctc 420
tgcattggctg ctctgaaaca ccagccacag gaattcccta cctacgtgga acccacaat 480
gatgaaatct gtgaggcggt caggaaagat ccaaaggaat atgctaataca atttatgtgg 540
gaatattcca ctaattacgg acgactcgag 570

<210> 236
<211> 702
<212> DNA
<213> Mus musculus

<400> 236
gaattcggcc aaagaggcct agaagaacat ttctagggaa taatacaaga agatttagga 60
atcattgaag ttataaatct ttggaatgag caaactcaga atgggtgtac ttgaagactc 120
tggatctgct gacttcagaa gacattttgt caacctgagt cccttcacca ttactgtggt 180
cttacttctc agtgccctytt ttgtcaccag ttctcttgga ggaacagaca aggagctgag 240
gctagtggat ggtgaaaaca agtgtagcgg gagagtggaa gtgaaagtcc aggaggagt 300
gggaacgggtg tgtaataatg gctggagcat ggaagcggtc tctgtgattt gtaaccagct 360
gggatgtcca actgctatca aagccccctgg atgggctaata tccagtgcag gttctggacg 420
catttgatg gatcatgttt ctgtgctggt gaatgagtca gctctttggg attgcaaaca 480
tgatggatgg ggaagcata gtaactgtac tcaccaacaa gatgctggag tgacctgctc 540
agatggatcc aatttggaata tgaggctgac gcgtggaggg aatatgtgtt ctggaagaat 600
agagatcaaa ttccaaggac ggtggggaca gtgtgtgatg ataacttcaa catagatcat 660
gcattctgca ttgttagaca acttgaatgt ggacggctcg ag 702

<210> 237
<211> 317
<212> DNA
<213> Mus musculus

<400> 237
gaattcggcc aaagaggcct aacggcaact ttacttaaga ttctctgtag tgtgtccgga 60
gacatacttt atatatagca attatcatgt ttctaactgt gcaatggtat gatttatgta 120
aagattcaaa atgattttgt ggaataatga ttagcaaaga tggataagt tagatttgaa 180
ttcttatgta tcagtaattt atgattctat ttctctgtta ttgtgaatgt tggttttatt 240
aaagagttat tgaaactgtc ataaaccatt ttataggtct ttaataaaaat caaagatgaa 300
atcagcaaag tctcgag 317

<210> 238
<211> 341
<212> DNA
<213> Mus musculus

<400> 238

```

gaattcggcc aaagaggcct acaaagaaat acggattaaa accgccgaca ttataaacac 60
aggggaaaca gactgactct tttaaagaa gtttaccccc tcttcaactc aacctgaag 120
acactgtcat aaattgttga acggtggaac ttagtagtcc ctttgtgatg ttgtcattca 180
ttacatctgt ttcatgttta ggtgtagtgg gcgtggctgt tgaaggaagt ttgcagtctt 240
gcagctttta ttccctgtgc aacaaaagct tagaacctgt taaagggata ttaaaacaaa 300
gttgtagaat acaaacagta attggccatg cagatctcga g 341

```

<210> 239

<211> 409

<212> DNA

<213> Mus musculus

<400> 239

```

gaattcggcc aaagaggcct acgaggctccc gggcttaagt gatectccca cctcagcctc 60
ctgggtagct gagatcacag gcgcgcgcca ccacaccaag ctaatttttt gatcgtctgt 120
agagacgtgt tctcacaata tggcccaggc tgggtgttga ctctcggagc tcttagatgt 180
tgattcagac tccttcatag tataataggc ttaaaatgga aagactgtgc gtacaggaat 240
ttatcctaag gaagtaatgt gtcagatttg cgtatataaa tttaatatca gttattaaga 300
atttttttta aaattaaata ttcaagtttt gggaatctgc taattctgtt gtgaaagtgg 360
aaatctatac agccacttaa aacagtatcg taggtgaaga gaactcgag 409

```

<210> 240

<211> 190

<212> DNA

<213> Mus musculus

<400> 240

```

gaattcggcc aaagaggcct acggcttgta ttttacaacg aaagcttata tatttgaagg 60
tgcccttgga atgtctaata gagacagcta tttttatgcc gcaattgttg ctgttgttgc 120
tggtcatgtg gttctggccc tgtttgtcta tgtggcctgg aatgaaggct caccagagtg 180
gcggctcgag 190

```

<210> 241

<211> 188

<212> DNA

<213> Mus musculus

<400> 241

```

gaattcggcc aaagaggcct agtgtatctg tgtctgtgtc tgtgtgtttg gggtagacag 60
accgacaggt ggacagttca gcagagtcca aaggccacac tgggaaagaa atgaatttac 120
ttttagtgtc tctttctctc ttctccctg ccttccccag tgcaagagaa gacgacaggc 180
cactcgag 188

```

<210> 242

<211> 110

<212> DNA

<213> Mus musculus

<400> 242

```

gaattcggcc aaagaggcct acacagaaca tgtttgggat gtggaagcct atgggtttct 60
tggctattgc agcagtagct ctgtatgtgt tacccaatat gcgactcgag 110

```

<210> 243

<211> 282

<212> DNA

<213> Mus musculus

<400> 243

```

gactctctac tactagttag ctgtatttta aaacttgttt gtgcagtatt gttctgatct 60

```

```
ctccctgaaa atataataac ggagaaatac ctactctggag tcttctggaa ggggaatggc 120
ctatgatctg tggctattat gtacatgggtg tctttgggtg tggctctttt ctectgggtg 180
gctgtaaatc ctccagctc ggccaggagt ggcaaagctc tgagcaccga tgctgctgcc 240
tgtcaggga gacttcctg tctcaccac ccacatctcg ag 282
```

<210> 244

<211> 372

<212> DNA

<213> Mus musculus

<400> 244

```
gaattcggcc aaagaggcct acttccagcg tgtgttacct cactgtctt taatagcctt 60
actgaattat aaggctatat tacaactac catattggta aaacattcag caagactcct 120
tgttaataat aattatatcc agtttcta atattccaa attctaatta cccctaactg 180
tgaaacataa aaggttaagca ctagtaaagt cctggctttc tcttttcagt tgtgatagcc 240
caatcctttg aggtaatagt aatgggtttc aaatcaaata cagccttgct ctgctgtgtt 300
tgctcagcat tattccctc ccatactatc ttttccccc caggccttgg agaataatc 360
acacacctcg ag 372
```

<210> 245

<211> 367

<212> DNA

<213> Mus musculus

<400> 245

```
gaattcggcc aaagaggcct agtttctcac tgtagaaatg aagcctgtgt gacgtgatgc 60
ctgtgctaac tagctgactt acctgtgtca ctatgcacat gccatagtga catgtcatga 120
catgtcatgt tacacgcttc caaacatgtt gccatggta aaaacacaca gcttatctgt 180
taattgaaaa gaggagttaa aaaccagcaa ccaatttctt tcttttcac tctctctctc 240
tctccctttc atttcccttc cttttctttt ctttctgact attttgatta ttccttgact 300
tttgtttctt acccattaaa tcgatctatt ttttcacaat cacagacaca cacagacaca 360
tctcgag 367
```

<210> 246

<211> 362

<212> DNA

<213> Mus musculus

<400> 246

```
gagtcctggc tgtccacatg gtcacatca tcttcatcat ccatactac catgtgggtca 60
tggctttcgt tggacttact tggaaagggtc tcttgtttaa agtcatttgt ttcttcagag 120
gacacagcat tctgtggggc taggagattc tgcttctgag atgggtcagg gtttagccat 180
gtggccacag catctgggtg tttgtgttaa agctgtttt cctcagaact tccagaatca 240
gctgtgttaa ctggtatggc acaggtgatg cctaggaggc aaaagcaa at cactgcaatt 300
ctcatggtag tgagttttcc ttggacggct cgaggcaggc ctaggcctct ttggccgaat 360
tc 362
```

<210> 247

<211> 486

<212> DNA

<213> Mus musculus

<400> 247

```
gaattcggcc aaagaggcct atgcttgccg gcagactcgc cgccatgggc cgtgtgatcc 60
gagggcagag gaaaggcgcg ggttctgttt tccgtgcgca cgtgaagcac cgtaaggcg 120
ccgcgcgcct acgtgctgtg gacttcgcgg agcgacacgg ctacattaaa ggcatcgtaa 180
aggacatcat tcatgacctt ggccggggcg ctcctctcgc caaagtcgtc tttcgggatc 240
cctaccgatt caagaagcgg acagagctgt tcatcgagc ggaggggatc cacactggac 300
agtctgtgta ctgcggcaag aaggcccagc tgaatatcgg caatgttttg cccgtgggca 360
ccatgctgta ggttacgatc gtgtgttctc tggaggagaa acctggggac aggggcaagc 420
```


tgccccgagc ctccgggaac tacgccacag tcctctccca caaccagag accaagaaga 480
ctcgag 486

<210> 248

<211> 182

<212> DNA

<213> Mus musculus

<400> 248

ctcgagagga aaggggacac gagcttagca tccaaagggg tttcgtgggc cacacagagt 60
aagggtccaa aaccagtgtc gtgggtccct tgggtcctgg gggaggccag gttctctaac 120
tctcgaggca ggtctagaat tcaatcggcc aaagaggcct ataggcctct ttggccgaat 180
tc 182

<210> 249

<211> 101

<212> DNA

<213> Homo sapiens

<400> 249

gaattcggcc aaagaggcct accatgggat ctgtgactgt tttgtgtatt gttgtatctt 60
tactcctaga gtgggtgcctg gcaagtagta gcaggctcga g 101

<210> 250

<211> 374

<212> DNA

<213> Homo sapiens

<400> 250

gaattcggcc aaagaggcct aatgatcttt ccccatgtgc caggctggag tgcagtgggtg 60
tgatcatagc tcaactgcagc ctcaagtgat agctcgtagc tcaactgggc aagtgatcct 120
cctacctcat cgtgagttagc tgggactaca ggtgcccctc caccatactc acctaatgtt 180
ttgaatattt tgtagagatg aggtcttgct atgttgccca ggctgggtctc aaactcctgg 240
gctcaagtga ttctcccgcc ttggcttccc aaattgctgg gattataggt atgagccacc 300
aagcccagcc ctgacctgat taataacacc caagacacac agagggtggga ccgtaacacg 360
gggagctact cgag 374

<210> 251

<211> 268

<212> DNA

<213> Homo sapiens

<400> 251

gcggccaaag aggcctacga gattctgtct ccaaaaaaaaa aaagcataag gaaaaggaac 60
aatttttagtt cctcataacc aattttcata tgctatattg aatctttcca aataaatgat 120
atttaatact aatgttttct gcttatttcc catgattctt ttggtgtctt acacttttaa 180
taataataaa atattccggc caggcgtggt ggctcacgcc tgtaatccca acaatttggg 240
aggccgagat gaacggatcc atctcgag 268

<210> 252

<211> 373

<212> DNA

<213> Homo sapiens

<400> 252

gaattcggcc aaagaggcct acttctttgt aatactcaga gacaatctca gtggcccctc 60
cagctgcatg gctttaaatg ccaactgacat gctgatgggt cagtaggggg gcgctgtggt 120
gccctgccag atcccttcac acagccagtg cccaggaccc ccaccccaaa cacactacca 180
cgcagtgttag ctgccagatg cctacagcct cttttccaga gacttgcctt caactgaagt 240
cacttgcctt caaatgtacc cacactccca gagaacttct cacagccaat aaatgactga 300

taaaggcttt cacagggtcc ttctgagagc accccaaca ataaaccaag tgcattcaga 360
 tccctgtctc gag 373

<210> 253
 <211> 553
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (48)

<220>
 <221> unsure
 <222> (86)

<220>
 <221> unsure
 <222> (461)

<400> 253
 gaattcggcc aaagaggcct atgcccgtga agaggcgggc ataacacngc aagacgagaa 60
 gaccctatcg agctttaatt tattantgca aacagtacct aacaaacca caggtectaa 120
 actaccaaac ctgcattaaa aatttcgggtt ggggcgacct cggagcagaa cccaacctcc 180
 gagcagtaca tgctaagact tcaccagtca aagcgaacta ctatactcaa ttgatccaat 240
 aacttgacca acggaacaag ttaccctagg gataacacgc caatccctatt ctagagtcca 300
 tatcaacaat agggtttacg acctcgatgt tggatcagga catcccgatg gtgcagccgc 360
 tattaaaggt tcgtttgttc aacgattaaa gtctacgtg atctgagttc agaccggagt 420
 aatccaggtc ggtttctatc tacttcaaat tcctccctgt ncgaaaggac aagagaaata 480
 aggctactt cacaaagcgc cttccccctg aaatgatatc atctcaactt agtattatac 540
 ccagcacctc gag 553

<210> 254
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 254
 gaattcggcc aaagaggcct aagaaagtga aaggtaagta gatagcacia aaggaaatgg 60
 tacaaaataag ccaaaaagtg taatgtatca gagtcaatgt ggataaaatt cacctattaa 120
 aaggcagaga tgggataata ataacataaa tcctgctgta tcctgggtta taaaaggcac 180
 acctaacacc aaacaaaag aaaattttga acataaagtt ttgaaaaact aagagggttt 240
 tattaaacct cttttattaa atctatttta ttatttatag taagatgacg tgtagtcca 300
 ttctcatgct actaataaag acatacccaa gattgggtaa tttataaaga aaagaagttt 360
 aattgactca tagttttgca tagccgggaa agctcgag 398

<210> 255
 <211> 492
 <212> DNA
 <213> Homo sapiens

<400> 255
 gaattcggcc aaagaggcct actcctgtac ttctagaaat gatgcaaaca cttcaaggac 60
 ccacaaatgt ggaagaaagg aaaatccaaa cctcctaggg cccagcaacc caaacaaaac 120
 ctctatattac atttcataaa ttgccttca atcaactttt atgcaaatat tttttcacat 180
 aattgtatc atatttaaac aaaatttttt ttttttttta gtatgacag gggcttgcta 240
 tgttgcccat gctggctctg aacccttagc ctcaacaat cttctcactt cagcatccca 300
 aaatgttggg attacagaca tgagccactg caccctagcct aaacagagta ttttttatta 360
 cacacctttt atgtgtccat gattacagta ggagttgtag gggatataaa ggcctatgcc 420
 actgaagtcc aaagaagaag gaggtcaaga aagagttttt gaagtagcat ttaagatgga 480

taaaccctcg ag

492

<210> 256

<211> 408

<212> DNA

<213> Homo sapiens

<400> 256

```

gaattcggcc aaagaggcct agcccttggt atttttttac ttcattagtt tatgctagt 60
tctctgtctc ttactcaatt ttctcttttt tcaatttctc ttctctctcc tttctctctc 120
tctctctctc acacacacac acaccctaca cacatgggca cacacacaca gtttcccagg 180
tttccctccc aaatccaaga agaaattggt ccctcttctg tatctccagt ctgttccgaa 240
atcatggcct cactctcagg gatgataagc ccttctctctg cttctctttt cccagacccc 300
aaagtcttcc ctacgcctgc tctggcgtcc cccaccccaa gttccctgct caaactctc 360
actaccagcc tttatccctc gaagtttgaa aatccctggt acctcgag 408

```

<210> 257

<211> 493

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<400> 257

```

gaattcggcc aaagaggcct agtgatttgt ttgttttttg agatggagtc tcgcactgtc 60
atccaggctg nagtgcaatg gtgcaatctc tgctcactgc aaactccgcc tccctggctc 120
aagtgattct cctgcctcag cctcccaggt agctgggatt acaggcacat gccactgcgc 180
caagctaatt tttgtatttt tagtagaaac ggggtttcac catgttgctt gggctggtct 240
tgaattcctg acctcagggt atacttgctt cgccctccca aagtgccttg gttacaggcg 300
tgagccagtg cggccagcgg cctctgtgat tttttaaat gtgtcactca cactaaattt 360
aacagcaatt tttttgataa ctcatTTTTT ttgtagtctt tccagaacat taaacttagt 420
tttcatagaa attgcaattc tctttgtatt taattaactt acataattaa aataacaact 480
ggctacactc gag 493

```

<210> 258

<211> 525

<212> DNA

<213> Homo sapiens

<400> 258

```

gaattcggcc aaagaggcct agacagagca agactctgtc taaaaaaaaa aggacaatga 60
gatatactaa aatgggtccaa tatgttaatt aaaacatact actaaaaaaaa gtgttaaata 120
gcctgaaaga attgtgataa aggggaaact gactactggg aacaaaagag aacaagtagg 180
taacgaagtg gtggccaggt gcagtggctc aggcctgtca tcccagcact gtgggagacc 240
gaggcgggag gatcacttga ggtcaggagt cagaccagtc tggccaacat agtgaaaccc 300
cgtctctact aaaaatacaa agttagccag ggggtgatggg gggagcctat aattcgagct 360
acgtgggagg ctgaggtagg agaactactt gaaccgggac ggtgctgcca cccgaggaag 420
tgacagctga actgagatct gactgaaggg ctgaagtctg gtggatgaag atgccagagg 480
agactgttct taggcagagg gacagtgat acgaaggacc tcgag 525

```

<210> 259

<211> 344

<212> DNA

<213> Homo sapiens

<400> 259

```

gaattcggcc aaagaggcct agagcttagg gagcatagga gtctcctgga gaattagaag 60
aaacagattt tcttagctcc ggccccagac gttctgattt agtgtggtgt agaactcagg 120

```

```

agttagtaat  attaatggac  agtcttgagt  atttgctgat  gcaactggtc  tgaggaccat  180
actttggaag  acctgcttta  gatagtagac  aggacagtaa  tttaaaatag  gcaaatatgg  240
tttattttta  aaatggtaaa  actagaaaag  tactgatttt  atgtgtttta  aaaaaaaagt  300
ctgcatctga  ctgctatggt  tatccaagaa  ggcacccgct  cgag          344

```

<210> 260

<211> 262

<212> DNA

<213> Homo sapiens

<400> 260

```

gtgtgtgccta  ataacattgt  gtgtgtgtgt  gtgtgtgtgt  gtgtgtgtgt  gtgtgtgtgt  60
gtgtgtgtttt  attgagaggg  tgggggggca  tcaactcaaca  ttcagcctgt  acataactcaa  120
aggtgtagaa  gtgacaaaga  tgactcaacc  aacaggactt  cccatgactg  gccagccaga  180
ggaagagggc  atgaggacac  agccagcagc  gttactgggt  cgtgatgacg  cagacctgcc  240
gggacacccc  caaattctcg  ag          262

```

<210> 261

<211> 421

<212> DNA

<213> Homo sapiens

<400> 261

```

gaattcggcc  ttcattggcct  acaaacagct  gggaaatgtct  ccaagccaga  gtggactact  60
agtaggtatt  cgttacttca  ttgaattctg  cagtgcctccc  ttttgggggtg  tagttgcaga  120
ccgcttttaaa  aaaggcaaaa  ttgtcctcct  cttttctctt  ttgtgttggtg  ttttattcaa  180
cctgggcatt  ggattttgtca  aacctgctac  cttgagatgt  gtaccaaaga  ttcgcccaac  240
aactcacccc  accaatgcaa  gtcaccagtt  aactatcctg  ccaacaaatt  cttcctttac  300
ctctttctct  accatatcac  caaaaatgctg  tgagaaaaga  aaccttttgg  aaacagggct  360
caatgtctca  gacaccgtta  ctttgccaac  agctccaaac  atgaacagtg  aaacactcga  420
g          421

```

<210> 262

<211> 329

<212> DNA

<213> Homo sapiens

<400> 262

```

ggtcaaacaa  tatgaaactt  gaagaagtag  ttgtgacttt  gcagcttga  ggtgacaaag  60
agccaacaga  gacaatagga  gacttgtcaa  tttgtcttga  tgggctacag  ttagagtctg  120
aagttgttac  caatggtgaa  actacatggt  cagaaagtgc  ttctcagaat  gatgatggct  180
ccagatccaa  ggatgaaaca  agagttagca  caaatggatc  agatgacct  gaagatgcag  240
gagctggtga  aaataggaga  gtcagtggga  ataattctcc  atcactctca  aatggtgggt  300
ttaaaccttc  tagaccccca  aaactcgag          329

```

<210> 263

<211> 499

<212> DNA

<213> Homo sapiens

<400> 263

```

gaattcggcc  ttcattggcct  aggtagcggt  tacagaataa  acacagaaat  ctggatatga  60
gaaataactg  tggaaatttat  aattccaacc  aaatgaaatc  cagcaccttg  ataatcatga  120
tctgactaca  atattattaa  acaaagctcg  aagaggaaaa  taggaatact  aaaaatatca  180
cattaagacc  aagatgagtc  cattatcacc  aatgctctac  agttccattc  ttcaggattt  240
ccactccatt  ttaaagtcta  gggtegattt  tcttcactct  aacctgaat  gcttatgata  300
acaccaaaata  cttgatttac  cttatatgaa  gatggcggct  ctgctctgag  aggagtttca  360
ggtaacttgc  caggtaaaac  atcttcatct  acagtgggtt  ccacattcct  gataagatac  420
tggctagtgg  tttgcagtga  actaacactt  tcttttttgg  agaggttagg  aagggtaaat  480
aaaatgtcac  tgtctcgag          499

```

<210> 264
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 264
 gaattcggcc ttcattggcct agttttttgtg agagtgtgta ggagtggagag tttatatttg 60
 gagaatatga gatgtaagat atgtatacca gaagaattgg ggctatatat ttgtgatttg 120
 ggttgtgaag atgtattttc catgtgtttt ctcagatgaa tgttgccgat ttgtatttgg 180
 ctaatgtttg gcagatttgg aagaattatc ttgtgcacat gggcaataac agagaaagt 240
 cttgtgtcta ttttgtggat gtacgctctg tttggtttac gtatttggga aatgtaggaa 300
 gaccatgcgt actcgag 317

<210> 265
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 265
 gaattcggcc ttcattggcct agtatcacag gctttcttca aataaccagt tcctctaaga 60
 cattgaaaat ataattcgggt gtttaaaata aattcatacc cgttttgtgt gctgtgcata 120
 aatagcaagt atatgtgtac cttaccaaac ttatgggtccc cagtcccaa attccaaaat 180
 tatgcaggag ggaagggttag ccattgcagt aaacaatttc tcctattga cccatgtct 240
 ccagctgatt atgatgtggg cagtactcat ccaaggctat acagaccagc cgggtctcga 300
 g 301

<210> 266
 <211> 517
 <212> DNA
 <213> Homo sapiens

<400> 266
 gaattcggcc ttcattggcct aggtaaagaa aaagcctgcc agggattcag aaggcatccc 60
 actagcgatc agctgacatt cctaactgaa ggctgcaatg tgttgcttat tcattttgta 120
 ccgtgggagc tgcggggact agcagagagc taaactatgc atttcaaaca gcagtgttg 180
 tgcagaaaaga ggggtgagag agaggcagcc ggcgaggaaa gagcacagct ggactttctc 240
 cttgttttta tccatttctg caggatcatg tattcataag ggatgaggcg ggccacggcg 300
 atcccaggcc tgagccgcgg cctaccagat cagttcagag ccaggccctc cactaccgga 360
 acagagagcg ctttgccag atcaaatcag catcttttgt tacacgacag atccatgagc 420
 atgagcagga gaacgagttg cgggaacaga tgtcaggtta taagtggatg cgacaatgga 480
 ttttacataa tggattgaat tctagacctg cctcgag 517

<210> 267
 <211> 491
 <212> DNA
 <213> Homo sapiens

<400> 267
 gaattcggcc ttcattggcct aatcccagct actcaggagg ctgaggcagg agaatacatt 60
 gaacccggga ggcggaagtt gcagtgaagt gagattgcgc ccctgcactc cagtcggggc 120
 aacagagcga gactccatct caaaaatata tatatatatt cagcaccac cacttctccc 180
 catctccact gcctgcacca gccccaggcc tgtccctcac ttgggtgtgt tcgtagctcc 240
 tgtctgggct gcttgcatc acccttgcca ccacagtctt ttctctccat agcagccggg 300
 ctgattcttc tcaaacctaa gtgcacataa gtactcagc tgcctctcag cctgcagtgt 360
 ctctgaact caccctggcc ctcaaggcca acccatcttc ctgcagagc tcgctcttg 420
 gtgtctccct cacttgcctg gctcctatcg tgcgggcctc catgcgctc ctgaacacac 480
 acagtctcga g 491

<210> 268
 <211> 528

<212> DNA

<213> Homo sapiens

<400> 268

```

gaattcggct tcatggccta caatctagag aaagcaaaaa ctatggaatt gaatgtagga 60
aatgaagcta gctttcatgg acaagagaga accaaaaactg gtatttctga agaagcagca 120
atagaagaaa ataaaagaaa tgatgactct gaagcagaca cagctaaact gaatgccaaa 180
gaagtagcaa ctgaggaatt taattcagat attagtcttt ctgataatac tacacctgta 240
aaattgaaatg ctcaaaactga gatttctgaa caaacagcag ctgggggaact agatggagga 300
aatgatgtat ctgatctaca ctcacttgaa gaaacgaata ccaaaatgaa aaattatgaa 360
gaaatgatga tcggcgaggc aatggctgaa actggccatg atggtgaaac agagaatgag 420
ggcataacta ccaaaacctc aaagcctgat gaagctgaaa caaacatgtt gactgcagaa 480
atggacaact ttgtttgtga cacagttgaa atgagcacia gactcgag 528

```

<210> 269

<211> 454

<212> DNA

<213> Homo sapiens

<400> 269

```

gaattcagct tcatggccta gggacgggtg tctcaaaaaa caaaaacaaa aataagttag 60
aaaaaaaaacc agaagaaact tgccttagc gttcctaaga cttaggagag ctaagccggg 120
gagggcagga gtatagggac aagaccatac caaggtcagc tgttccccct gccgagaagg 180
cagcagctga actttccgct tacgctgccc agagctgcca ggtgtagact gagaattcga 240
gttttgtttc ttccttgggg ttgtatctgc agccttttct ccctgggact cctgtctgct 300
gccaatggag ttgaagaact ggaatgatga cacagctctt cttctcttat tttctttgct 360
ggcctctccg gtgtctggga gcgggatgag gctgggctag agaaggggtga tgaactgggg 420
ccatttctct tccacagctg tgagatgcct cgag 454

```

<210> 270

<211> 340

<212> DNA

<213> Homo sapiens

<400> 270

```

gaattcggcc ttcattgccta gtgtgctgta tgacaaagac gctgtctatg ttgaccttg 60
tggcagccac gtttttcagg atgaagtggg gccaccccat gagctggtcc agagtctcat 120
ctctaccac tccaccattg atgccaagat ggcttcaagt cgagtgcgc tgttttctga 180
ttccaagcca cttgggtcag aggatataga taatcaaggg ctaatgatgc caaaggagga 240
aaaacaaatg gacttgaaca ctggtcgaa gcgtcgaaa gccattttcg gagatgaaga 300
tgaatctgga gatagtgatg atgaagaaga tgatctcgag 340

```

<210> 271

<211> 496

<212> DNA

<213> Homo sapiens

<400> 271

```

gaattcggcc aaagaggcct atgaagtcac tgagacaata gctgatctca ttgggccaat 60
gagctcttcta aaaattgcag tecttctccc ttggcattcc acagtcaagt aaacttacac 120
gtattgtctg gaagaatgaa tccatttct cctccatctt ctttggctct ggtgtgggct 180
tatgtaatct ggatacaatc ccataaagt gctgtgttta gtaatgtcat ttctccgtgt 240
ctgttgggga ctggtttcac gatccctaa ggatagcaaa atctctggt gctcatggcc 300
tttatataaa agggcacgat atttgcatac aatctacaca tccccccaca tactttcaat 360
catctctact cataatactg aatacaatgt aaatcctatg taaatcgta ttatgctgta 420
ttggtttttt cgtctgtgat attttcagta ttgcatgtt ttgttgtaaa aacagggctc 480
tgctcagtca ctcgag 496

```

<210> 272

<211> 403

<212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (25)

<220>
 <221> unsure
 <222> (29)

<220>
 <221> unsure
 <222> (43)

<400> 272
 gaattcggcc ttcattggcct aagantgtnt gtgggtgtgg ganccagccg tatcagaaat 60
 ctttttaggg aagcaaaggc gaatgctcct tgtgttatat ttattgatga attagattct 120
 gttggtggga agagaattga atctccaatg catccatatt caaggcagac cataaatcaa 180
 cttcttgctg aaatggatgg ttttaaacc c aatgaaggag ttatcataat aggagccaca 240
 aacttcccag aggcattaga taatgcctta atacgtcctg gtcgttttga catgcaagtt 300
 acagtcccaa ggcagatgt aaaagggtcga acagaaattt tgaaatggta tctcaataaa 360
 ataaagtttg atcaatccgt tgatccagaa attatagctc gag 403

<210> 273
 <211> 455
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (133)

<400> 273
 gaattcggcc ttcattggcct agtaggtaca tccaaaattt cttcatagtc tgcactcatt 60
 ccctttgccc agcgaccaac tgtgaccatt cgctctgaat tctgactttc agggcaatct 120
 ttcttttaaat gtncacaga gccacaaagt ttgcaaccgc caccatcagc atagagtcct 180
 ttgggattat caggacaaga tctagacagg tgccccattt ctccacaaac aaaacatttt 240
 gcaaaaaggaa attcgccaag agcgggtctt acttttagcct tacacttggg tatttcgtgc 300
 tctgtggacc cacacctgta acatatccca gtgcccattg cttgattttc aagggcagcg 360
 gggcaatctg caattccatg accaggtttt ctacaatgga aacacaccgc gcacgaatcc 420
 cccaggcact cgaggcaggc ctagaattca atcgg 455

<210> 274
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 274
 gaattcggcc ttcattggcct agggaaaaat gattgtagaa ctagtgggca tctaattgctc 60
 taaaaaattt tttttgtttg ttttttttta aagacagggc ctcaccctct cccccagtcg 120
 ggagtgcagt ggcacaatca cggtcactg caccctcgaa ctctgggct caagcaatac 180
 tctgcctca ccctccggag tagctggaac tacagatgtg caccaccata aaaaacatat 240
 ttaaaaattc tgaaatattt gtagtgctaa cgcttttttt atccactgag tatagaatca 300
 cagcataatc ttcataact tttacettca caagttcttt aaatacagca tgctgaatca 360
 ttttttcttt gacctgcctc gag 383

<210> 275
 <211> 302
 <212> DNA

<213> Homo sapiens

<400> 275

```

gggaagatct aaagaccag gaaggtctct gggataaagc caagatgaa ccccccttac 60
ttctggctct tctatttggg gcagtttctg ctcttcactt aaggtctgag acttccacct 120
ttgagacccc ttgggtgctt aagacgctgc ctgaggatga ggagacacca gagcaggaga 180
tggaggagac cccttgcagg gagctggagg aagaggagga gtggggctct ggaagtgaag 240
atgcctccaa gaaagatggg gctgttgagt ctatctcagt gccagatatg gtgatactcg 300
ag 302

```

<210> 276

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (319)

<400> 276

```

gaattcggcc ttcattggcct aaaactagaa acagttatat ccttttagaga aattactatt 60
ttcaagattt ttgctagctg cttcttggca agttttgtaa acttttggtg acttttaact 120
ttatgtcact catctcttaa aactgtagat cacttttgtc ttgctaggta caatgttggg 180
gtcacacagt cttcattaca tgcatgtggg tggcacattt ctgatgtcag gctagcttcc 240
ttcctaacac ttccttgcac cattctagca gcatgatctt agggcatgta agcccatttt 300
aatgttagtc ttaaacatnt gacacacaca cacacacaca cacacacaca cacacacaca 360
cacatacacg gacatttttg gattatagtg atattgttaa attgaatata taactggaat 420
caagtgcacat ttgaatgaga cagattcaca gaagtcatag agctcgag 468

```

<210> 277

<211> 443

<212> DNA

<213> Homo sapiens

<400> 277

```

gaattcggcc ttcattggcct actaagcacc atagaatata ttttgtttca caaatttggg 60
attcattcag aataagtatt tgaaaagtga gtaaattcta tgcaattata gttattaaat 120
gacttataaa ctgtgtttct cttccacttc ttgctacatt taatcttcta ggtgttcaga 180
tatctttgga gattatagc agcaataaag ctaaggcagc taacctttca acattcttgt 240
gtcagggctaa tattttgggtg aaaggaattc ttgtgtttct caaagaacta gagctgaagc 300
agaaataagt tccaatgagc aagtgtccaa ttggaccatt gaatgaaatc tagtgtttta 360
aacaattctg atgtttcaat gttttgttct gttttctttt gatcttgta gcagtaagac 420
atattttatg tgggtggctc gag 443

```

<210> 278

<211> 354

<212> DNA

<213> Homo sapiens

<400> 278

```

gaattcggcc ttcattggcct aggtggagtc cgtcatgccg gtgggtggtg gcacattgag 60
ccccgtata gacagttccc ccagctgacc agatcccagg tgttccagag cgagttcttc 120
agcggactca tgtggttctg gattctctgg cgcttttggc atgactcaga agaggtgctg 180
ggtcactttc cgtatcctga tccttcccag tggacagatg aagaattagg tatccctcct 240
gatgatgaag actgaaggtg tagactcagc ctcaactctgt acaagagcca ggtgagaatt 300
ccaaggatta tcgacttcat attgcacatt aaagttacaa attaaagact cgag 354

```

<210> 279

<211> 414

<212> DNA

<213> Homo sapiens

<400> 279

```

gaattcggcc ttcattggcct acacaaacca gcttgctgac aaaggggaagc tttctcctca 60
tgctttcaaa accgaatctg gggaggaaac tgacctcatt tctccccgc aggaggaagt 120
taagtcttca ggcctactg aggatgtgga gcccaaagag gctgaagatg atgatacagg 180
acccgaggag gctcaccgcc caaagaagag aaagaaaaga tgtccgggtc tgcctccagt 240
gagaaccgtg aaggaacact ttcggattcc acgggtagcg agaaggatga cctttatccg 300
aacgggtctg gaaatggcag cgcggagagc agccacttct ttgcatactt ggtgactgca 360
gccattcttg tggtgtcct ctatatcgct catcacaaca agcggacact cgag 414

```

<210> 280

<211> 352

<212> DNA

<213> Homo sapiens

<400> 280

```

gaattcggcc ttcattggcct acagacatgc aggtgacgg tgaagagcag aataaagaag 60
cgctgcagga cgtggaagac gaaaatcagt gagacataag ccaacaagag aaaccatctc 120
tgaccacccc ctctcccca tcccaccctt tggaaactcc ccattgtcac tgagaaccac 180
caaatctgac ttttacattt ggtctcagaa tttagggtcc tgcctgttg gttttttttt 240
ttttttttt aaacagtttt caaaagtctt taaaggcaag agtgaatttc tgtggatttt 300
actggccca gcttttaggt tctttaagac actaacagga ctaactctcg ag 352

```

<210> 281

<211> 350

<212> DNA

<213> Homo sapiens

<400> 281

```

gaattcggcc ttcattggcct aactgagtgc cctcaaagag aagaagaaga aaaggacagt 60
ggaggaagaa gaccaaatac tccttgatgg ccaggaaaat aaaagaaggg gccatgatag 120
cagtggcagt ggacattcag cttttgagcc cctgggtggc agtggagtcc ccgtttcttt 180
tgtgcctaag cctgggtctc tgaagagagg cctcaattct cagagctcag atgaccactt 240
gaataagaga tccgaagct cttccatgag ctcttgaca ggcgcttaca caagtggcat 300
ccctagctcc agccgcaatg ccattaccag ttcctacagc tccactcgag 350

```

<210> 282

<211> 285

<212> DNA

<213> Homo sapiens

<400> 282

```

gcttttctaa gaaatatggg gtttagaatg gggttcctgc agctgctggt cgtagcgggtg 60
ctggcatccg aacaccgggt ggtggtgca gccgaggtct tcgggaattc cagcgagggt 120
cttattgaat tttctgtggg gaaatttaga tacttcgagc tcaataggcc ctttccagag 180
gaagctattt tgcattgat tccaagcaat gtgacttttc ttattttcca aataactca 240
cagtatcaga atacaactgt ttccttttct cagactcccc tcgag 285

```

<210> 283

<211> 334

<212> DNA

<213> Homo sapiens

<400> 283

```

gtgcgaccaa aatccagtgg agagtccaat gtgtcagtca aatagcagag atcacctcag 60
tgacaaagaa agtaaggaga gcagtgttga gggggcagag aatcaaaagg gtccttttga 120
aagcaaaagt cataaaaaat tactgcagtt acttacctgt tcttctgatg accggggtca 180
ttctctcttg accaaactcc cctagattc aagttgtaaa gaatcttctg ttagtgtcac 240
cagccctctt ggagtctcct cctctacatc tggaggagta tctctacat ccaatatgca 300

```

tgggtcactg ttacaagaga agcacggact cgag

334

<210> 284

<211> 445

<212> DNA

<213> Homo sapiens

<400> 284

gaattttctag acctgcctca tgctctctcc aacaggcttg cagccaattt actggagcag 60
 ggatgacgta gcccagtggc tcaagtgggc tgaaaatgag ttttctttaa ggccaattga 120
 cagcaacacg tttgaaatga atggcaaaag tctcctgctg ctgaccaaag aggactttcg 180
 ctatcgatct cctcattcag gtgatgtgct ctatgaactc cttcagcata ttctgaagca 240
 gaggaacctt cggattcttt ttccaccatt cttccaccct ggaaactcta tacacacaca 300
 gccggagggtc atactgcacg agaaccatga agaagataac tgtgtccaga ggacccccag 360
 gccatccgtg gataatgtgc accataaccc tcccaccatt gaactgttgc accgctccag 420
 gtcacctatc acgacaaatc tcgag 445

<210> 285

<211> 289

<212> DNA

<213> Homo sapiens

<400> 285

gaattcggcc ttcattggcct aatgagatcc tggattacaa ggatttagca gccattccga 60
 aggtcaaggc aatttatgac attgaacgct cagatcttat tacctatgag cctttctaca 120
 ctccgggcta tgatgacaaa caggagagac agagccttgg agagtctccg aggactttgt 180
 ctccactctc atcagcagaa gggtagcagg atgttcggga tcggatgac catcggtcca 240
 cgagccaggg ctccatcaac tcccctgtgt acagccgcca caactcgag 289

<210> 286

<211> 422

<212> DNA

<213> Homo sapiens

<400> 286

gcgattgaat tctagacctg cccgagatga atgacctta tgcctctctc cctgaggatg 60
 atgatgacca tcagaaagac ggcaagacct acagggtgccg gatgtgctca ctgacattct 120
 actccaagtc ggagatgcag atccactcca agtcacacac cgagaccaag cccacaaagt 180
 gccacattg ctccaagacc ttccgcaaca gtcctactct ggcccagcac atccgtatac 240
 actcaggggc taagccctac agttgttaact tctgtgagaa atccttccgc cagctctccc 300
 accttcagca gcacaccgga atccacactg gtgatagacc atacaaatgt gcacaccag 360
 gctgtgagaa agccttcaca caactctcca atctgcaggt aaatgttcca cccacactcg 420
 ag 422

<210> 287

<211> 400

<212> DNA

<213> Homo sapiens

<400> 287

gaattcggcc aaagaggcct aggattctca cccactgtgc ttccagccgg ctcaccttga 60
 attcgtccat gattttgcga atggctttgc cgcgggcacc aatgatgcgg gcgtgaacgc 120
 ggtggtccag cgggacgtcc tcagaaacca tctgtcgaag ttcaccacaca attctcagta 180
 tagcatccct ggcagcttct gtgttctttt cgtaccctgt gatggttaatt tggctcctggg 240
 gctaaaaaag gagaatgtag tcagaaaagg ggatgcctta ctgggattcc cgtcaggggc 300
 aagagccggc cccactgctc gagggaaaaca gctcaggaga gaagatggaa agcaacgcca 360
 cggctgattt aaaacaagag gtttaacaacg tccactcgag 400

<210> 288

<211> 194

<212> DNA

<213> Homo sapiens

<400> 288

```
gaattcggcc aaagaggcct agcctttatt tgaactacta cattgctacc agattacatc 60
acttttcaga gttagagtaa cataatacct tggaaactat agccgaaaca gtccacatag 120
gaatgcactt tcattccact tttgcacttt tcctttggca cagtgaagct tatcttacag 180
tcccatttct cgag 194
```

<210> 289

<211> 413

<212> DNA

<213> Homo sapiens

<400> 289

```
gaattcggcc aaagaggcct aggggggacgt gaggtaagaa ggtgcccggg ccagggggca 60
ggagctctga ttaggacag ctcagcccag tcaaggggtg ctatgaggac agcaggggcc 120
tccgagtctg ggtggcctc acccccacaa gcagtcctgg ctactcagca gcactacca 180
gaggggacgc ctgggcagtt tcttcaattc ggtggcacat caacatcgtt tgaaacttgt 240
tttttcttgt tttgttttct agaatttgat tcttccagaa tgaccttctt atttatgtaa 300
ctggccttca ttttagattgt aagttatgga catgatttga gatgtagaag ccatttttta 360
ttaataaaaa cgcttatttt aggtccgctc cccattgtgg ctctggtctc gag 413
```

<210> 290

<211> 213

<212> DNA

<213> Homo sapiens

<400> 290

```
gaattcggcc aaagaggcct acttaatatg actagcttac acaatagctt ttatagtaaa 60
gatactcttt tacggactcc acttatgact ccctaaagcc catgtcgaag ccccatcgc 120
tgggtcaata gcacttgccg cagtactctt aaactaggcg gctatggtat aatacgctc 180
acactcattc tcaatcacct gagtccactc gag 213
```

<210> 291

<211> 136

<212> DNA

<213> Homo sapiens

<400> 291

```
gaattcggcc ttcattggcct acgcctacac aattctccga tccgtcccta acaaactagg 60
aggcgtcctt gccctattac tatccatcct catcctagca ataatcccca tctcccatat 120
atccaaacaa ctcgag 136
```

<210> 292

<211> 300

<212> DNA

<213> Homo sapiens

<400> 292

```
gcgattgaat tctagactgc cagagccttc cctgtggttg tgtaaatcat ttgtattcag 60
ttactgtgcc cggaaaaccc ttccctcgcg gtgcagggtg cacacagatt cattcctcac 120
ttgcttgggg cagtcattgt tctgtctctc tgtctctgtc tctctgtctg tctgtctgtc 180
tgtctctctc tctctctctc ttatctgcac gaagagctcc agatactcgt ctcttggaat 240
ggtggagatg aactaggcat ggaggtgcgt gaccaacctc agacggctcc cccactcgag 300
```

<210> 293

<211> 434

<212> DNA

<213> Homo sapiens

<400> 293

```

gaattcggcc aaagaggcct atttagctga ttattattaa atatttcagt tttgtttata 60
atagaaactg cctcatgttt ccagatatta ttatgctaac atttattttc tgcttaaata 120
gacttgctat ggagagactc tatgcagttt ttacagatta cgagcatgac aaagtttcca 180
gagatgaagc tgttaacaaa ataagattag atacggagga acaactaaaa gaaaaatttc 240
cagaagccga tccatatgaa ataatagaat ccttcaatgt tgttgcaaag gaagttttta 300
gaagtattgt tttgaatgaa tacaaaaggt gcgatggtcg qgatttgact tcacttagga 360
atgtaagtgt tgaggtagat atgtttaaaa cccttcacgtg atcagcatta tttcaaagag 420
gacaaacgct cgag 434

```

<210> 294

<211> 386

<212> DNA

<213> Homo sapiens

<400> 294

```

gaattcggcc aaagaggcct aacccacttt ggccctccaa agtgcctggga ttacaggtgt 60
gagccactgt gcccagcctt aaccattcac ttttgagggg catttttggtt atttctaggt 120
tttggtctatt gttcaactgc tatgaacaat catgtacaga tttttgaagc tgaaaaagca 180
ttgaagatgc ttccaaagat aaatattact gataagtttt tctcccagc aataagcagc 240
tggaattttaa atgttagtct aaagcgtgag gtctaattgt gcagatttct ttactctctt 300
aggtgttatg cctcaaacat aactcccata ttgggcgtgg caatccagtt aatctggtgt 360
cagtagtggt aaagaacct ctcgag 386

```

<210> 295

<211> 433

<212> DNA

<213> Homo sapiens

<400> 295

```

gtcgacgggt aaggcaggga cagggggagg tttcttggtt ttcttttctt ctttgagagc 60
cttcttcaca gggcgtgtgg atttggtgtt ggacgctggg tcatgctctc cagggtcacc 120
tgaactgggg gtgagctcct ggagccgccc gatgcaactgc ttcagctcgt ttttgaggtc 180
tatggtgctc tgggtggatgc cttttatcag cttgtgggtc agttccacct cggggatgta 240
gactggcttt gttgaaattc ctgcagtttt tgatgctttc tccagaaact cgaactcacc 300
cctcttggtc aggetctgtt caatctcttc cctcaaggtc tggatctcac tcttctctct 360
gaggagaatc tgataaatgg tgtaaaactt gctgttgacc ctcttcgtca cggcctcttt 420
ggccctcgag aca 433

```

<210> 296

<211> 363

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (197)

<220>

<221> unsure

<222> (343) .. (344)

<400> 296

```

gtcgacgagc gccaggcttt atcttatcaa aatgctgact cttatcacca tcacaccagc 60
ccccagcatc tgctacaaat cagggcacaa gaatgtgtct cacaggcttc ctcacccacc 120
ccgccccacg ggtatgctca ccagccggca ctgatgcatt cagagagcat ggaggaggac 180
tgctcgtgtg aggggggncaa ggatggcttc caagacagta agagttcaag tacattgacc 240
aaaggttgcc atgacagccc tctgctcttg agtaccgggt gacctgggga ccctgaatct 300

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ttgctaggaa ctgtgagtca tgccccaaga attgggtcaa cgmncctctt ggccctcgag 360
aca 363

<210> 297
<211> 545
<212> DNA
<213> Homo sapiens

<220>
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<220>
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<222> (343)

<400> 297
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tgatttgctt ttgcctccta ggcacacct gtgccatacc agttaaacag gctgattctg 180

gaagttctga ggaaaagcag ctttacaaca natacccaga tgctgtgncc acatggctaa 240
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 aaaccaatga ctttaaaca gagacccttc caagtaagtc cancgaaagc catgaccaca 360
 tggatgatat ggatgatgaa gatgatgacg accatgtgga cagccaggac tccattgact 420
 cgagcgactc tgatgatgta gatgacactg atgattctca ccagtctgat gagtctcacc 480
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<210> 298

<211> 419

<212> DNA

<213> Mus musculus

<400> 298

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 aatagctagt attcataata attccatttg aattagagaa aaaaattcag aattgatact 180
 atttggttaat ttgttgccct tatggaagat gatttctaag ttcgttagaa tttcttagcc 240
 aagcctgtct ctgacgtaaa tctgacctat tgtgtggttg gacttagaat attttccctt 300
 atgggaaagt acgcttgaa ctcaacattg ggccagtgtt tctcctttgc ctgtgtagt 360
 tcatagtgtg aggaaaacat ctaactagaa tgctgtacct cagcccccca gaactcgag 419

<210> 299

<211> 511

<212> DNA

<213> Mus musculus

<400> 299

gaattcggcc aaagaggcct agtggcgggc tccggcaaag tgatttgag aggtacaact 60
 gatgagaaaa aaagagcaag agaggaaagg agagacttct gctgccaaca tgcagagaag 120
 tattatgtca ttttttcaac ccacaaaaga aggtaaagcg aagaagccag agaaggagac 180
 acccagcagc atcagagaga aggzaccccc tccaaagggtg gcgctgaagg agaggaatca 240
 agtgggtgcc gagagtgtt ctccagtgaaggaggacagga aggaaggtag cccaggttct 300
 gagctgtgaa ggggaggacg aagatgaagc ccctggcacc cccaaagtcc agaagcctgt 360
 gtcagactct gaacagagct ctctctccag ccctgacaca tgtcttgaga acagtcctgt 420
 cttcaactgc agtcccccca tggacatctc cccatcagga tccccaaagc gtcgaactgc 480
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<210> 300

<211> 663

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (272)

<220>

<221> unsure

<222> (330)

<400> 300

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 gtgttccacc gttcggtccc agagtccga ggaaggatac agcaggaacg aaaaaacatc 180
 agaccaata ttatccttgt gctcactgac gaccaggatg tggagctggg ttccctgcaa 240
 gtcttgaaaca agacgagaaa aatcatggaa cngggtgggg ccaccttcac caatgccttt 300
 gtgaccacgc ccatgtgctg tccatcacgn tcatccatgc tctctgggaa gtacgtgcat 360
 aaccacaatg tctacacca caatgagaac tgctcgtctc cttcgtggca ggcaatgcac 420
 ggcctcggga cctttgctgt gtatctcaac aacaccggct acagaacagc cttttttgga 480

aaatacctca atgaatacaa tggcagctac atccctcctg gatggcgaga atggctcgga 540
 ttaatacaga attctcgttt ctataattac actgtttgtc gcaacggcat caaggagaag 600
 catggatttg attatgcaaa ggattacttc acagacttaa tcactaacga gagcatactc 660
 gag 663

<210> 301

<211> 412

<212> DNA

<213> Mus musculus

<400> 301

gaattcggcc aaagaggcct agatgaagtt cactgtggtg gcggcgccgt tgctgctgct 60
 gggcgccggtg cgggccgagg aggaggacaa gaaggaggat gtgggcacgg tggtcggcat 120
 cgacttgggg accacctatt cctgcgtcgg tgtgttcaag aacggccgcg tggagatcat 180
 agccaacgat cagggcaacc gcatcacgcc gtcgtatgtg gccttcactc ctgaagggga 240
 gcgtctgatt ggcatgcgg ccaagaacca actcacgtcc aaccccgaga acacggctct 300
 cgatgccaaag cgcctcatcg gacgcacttg gaatgaccct tcggtgcagc aggacatcaa 360
 gttcttgcca tccaagggtg ttgaaaagaa aactaaaccg cacattctcg ag 412

<210> 302

<211> 499

<212> DNA

<213> Mus musculus

<400> 302

gaattcggcc aaagaggcct aggactactc cttaataatg cagaccttac aggaagagcg 60
 gtatagatgt gagcgactgg aagagcagct gaatgacctg acagagctgc accagaatga 120
 gacccgaac ttaaagcagg agttggccag catggaagag aaaatcgctc atcagtcata 180
 tgaacggcc cgggatatcc aggaggtctt ggaggcctgt caaacccgca tttccaagat 240
 ggagctgcag cagcaacagc agcaggtggt gcaactggaa gggctggaga atgccactgc 300
 ccgaaacctt ctgggcaaac tcatcaatat cctccttgct gtcattggcag ttctcttggt 360
 ctttgtgtca acagtagcca actgtgtggt cccctcatg aagacacgca acaggacgtt 420
 caycacttta ttcttagtgg ctttcattgc ctttctttgg aagcactggg atgccctctt 480
 tagctacgtg gtactcgag 499

<210> 303

<211> 472

<212> DNA

<213> Mus musculus

<400> 303

gaattcggcc aaagaggcct acatggagtc cccttctttg tttctctgca aagggtcct 60
 gctcacagcc tcaactttta tctgctggaa ctggtccact gcagcactgc tgacctctaa 120
 agaaatgcgc ttctcagctg ctgaaggggc aaaggttctt ctctctgttc ctgaccagga 180
 ggagaacctc ctctcctttt cctggtacaa aggggaaggat gtaaatgaaa attttacaat 240
 tgcacattat aaaaagtcca gcgattcact tcaacttggg aagaaagtca gcggcaggga 300
 agaaatctat aaggatggct ccatgatgct ccgggccatc accctggaag acacgggatt 360
 ctacacgtta caaaccttta aagcacaagg ccaacaggaa gtaacacatt tccatctcca 420
 agtatacaag atcgtgacaa agcctacct ccagctcaac cacagactcg ag 472

<210> 304

<211> 543

<212> DNA

<213> Mus musculus

<400> 304

gaattcggcc aaagaggcct aagatgacag agggaaaaca taaagacaga ggagctatca 60
 agcgaggaga gcgatctata aattgacaat gaaggtgtaa ttgaaccaga cactgatgcc 120
 cctcaggaaa tgggagatga aaatgcagag ataaccgagg agatgatgga tgaagcaa 180
 gagaagaagg gggctgccat tgaagcccta aatgatggtg agctccagaa agccattgac 240

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ttgttcacag acgccatcaa gctaaatcct cgcttggtta ttctgtacgc caagagagcc 300
agtgtctttg tcaaactaca gaagccaaat gctgccatcc gagactgtga cagagccatt 360
gaaataaacc ctgattccgc tcagccatac aaatggcgag ggaaagcaca cagactcttg 420
ggtcactggg aggaagcagc tcatgacctt gcccttgctt gtaaaactgga ttatgacgag 480
gatgccagtg caatgctgag agaagtccaa cctcgggctc aaaaaattgc tgaacccctc 540
gag 543

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<210> 305

<211> 559

<212> DNA

<213> Mus musculus

<400> 305

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gaattcggcc aaagaggcct atgtcccagg gcccaatatc taagcccaag cggaagagag 60
agaaaaagga aaaaaagaag aaacggaagg cagagaaaca tcgtggccga attgggatcg 120
atgaagatga taaggggcct agggcacctc gcccacctca gcccaagaaa tctaagaaag 180
caggtggtgg gggtagcaat gctactacac tcagccatcc tggctttggg acttcgggag 240
gaagtagcaa caagctacct aaaaagtctc aaaagacagc tccacctgtc cttccctactg 300
gctatgattc tgaggaggag gaagaaagca ggcccatgag ttatgatgag aagagacagt 360
taagcctgga tatcaataag ttacctgggg aaaaagctggg tcgagtagta catatcatcc 420
aagccaggga accctctcta cgtgattcaa atccagaaga aattgagatt gattttgaaa 480
cactcaagcc gtccacactt agagagcttg agcgatatgt tttatcctgc cttcgaaaga 540
aaccctggaa agcctcgag 559

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<210> 306

<211> 459

<212> DNA

<213> Mus musculus

<400> 306

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gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaaa ttaaaaacga gctggcccac ttatgttgat acgtcagtg 120
atagttatga atttgcctct catctggctc ccctggggcc tectcaccac aacctttgga 180
acttcacagg cagagatgga gttggtccag cacattggtg tccctgccag taagatcatc 240
tgtgccaacc cctgtaagca agttgcacag atcaagtatg ctgccaagca cggggtgagg 300
ctgctgagct tcgacaatga agtggagctg gccaaaggtg tcaagagcca ccccagtggc 360
aagatgggtc tgtgcattgc taccaggac tccactctc tgaatcacct gagcctgagg 420
tttggggcgt cgctgaaatc ctgcagacat ctgctcgag 459

```

<210> 307

<211> 434

<212> DNA

<213> Mus musculus

<400> 307

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gaattcggcc aaagaggcct atgcaaccca aacagcccgg gacctgctg gcgctccgct 60
ccttgcttcc acacctggga ctgttctctg gctggctct gcacttatcc ccctccctct 120
ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttgg 180
aaatcagcac tatggctaac gtctctgggtg gggatgtaac ctatacagtg acgggtccccg 240
tgaacgattc agtcagtggc gtgatectga aagcagtga ggaggacgac agcccagtgg 300
gcacctggag tggaaacatat gagaagtga acgacagcag tgtctactat aacttgacat 360
cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
aaaacaatct cgag 434

```

<210> 308

<211> 499

<212> DNA

<213> Mus musculus

<400> 308

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gaattcggcc aaagaggcct agtgggtgctt ttttataaag ctgaggtcct gagtgaagag 60

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```

cccattctga agtggcataa agacgcacat gttgcaaagg gcaaaagtgt cttccttgag 120
caaatgaaga agttttaga atggctcaaa aatgctgagg aggaatctga gtctgaagct 180
gaagaagggtg actgaatgtt gaaacaacat cctcagtaaa gcaaacagga gttgtagata 240
aaatgtcatg tctcatgtgt cctgggtctt acatcttctt acctccctat atcaagcatg 300
atataagggtt tttcatggca atttttatct taactgtttt tatggttact ggaaatgttg 360
gctttgggtt ctgaaaccac gtgtgaggag caagctgcag gagccgtaga attgaatctg 420
atgttgcatg ggttttcagt taccttctac ctctgtatt ttctactgta ataattgtat 480
gtaaggccat ccgctcgag 499

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<210> 309

<211> 105

<212> DNA

<213> Mus musculus

<400> 309

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gaattcggcc aaagaggcct agagtggctg ctcttcttgc attccaacac atacttgtac 60
ttctctacca aggcaagcaa gatgctcttc cccaagctcc tcgag 105

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<210> 310

<211> 458

<212> DNA

<213> Mus musculus

<400> 310

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gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaa ttaaaaacga gctggccacc ttatgttgat acgtcagtg 120
atagttatga atttgcctct catctggctc cctggggccc tctcaccac aacctttgga 180
cttcacagge agagatggag ttggtccagc acattggtgt cctggccagt aagatcatct 240
gtgccaaccc ctgtaagcaa gttgcacaga tcaagtatgc tgccaagcac ggggtgaggc 300
tgctgagctt cgacaatgaa gtggagctgg ccaaggtggt caagagccac cccagtgcc 360
agatggttct gtgcattgct acccaggact cccactctct gaatcacctg agcctgaggt 420
ttggggcgct gctgaaatcc tgcagacatc tgctcgag 458

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<210> 311

<211> 578

<212> DNA

<213> Mus musculus

<400> 311

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acattgtggt gcactacacg ttcaacaagg ttctcatgct gcaggagccg ctgctggctg 120
tggtcgccct ctacatcctg ttcttcaccg tcatcatcta cgtccgtctg gacttttcca 180
tcaccaagga tccagctgca gaagccagga tgaaagtggc ctgtatcaca gacaggtct 240
taacctgggt caacaagagg ctgggcctct accgtcactt tgatgagact gtcaatagat 300
acaagcagtc ccgggatatc tctaccctca acagtggcaa gaagagccta gagacagagc 360
acaaggctgt gaccagcgag attgctgtac tgcagtctcg gctgaagacg gagggctcag 420
acctgtgtga caggtgtgag gagatgcaga agctggacgc ccaggtcaag gagctggctc 480
tgaagtcggc ggtagaagca gagaggctgg tggctggcaa gctcaagaag gatactacc 540
tggaataacga gaagctcagc tcaggaaaac acctcgag 578

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<210> 312

<211> 409

<212> DNA

<213> Mus musculus

<400> 312

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gaattcggcc aaagaggcct acctaatggt tcacagaaca ccggtggcgg ttacaaaatt 60
tgaactacag ttcccaagcc atagtaattt tttttttttt tttttgaatt agcgcagtcg 120
ggtttttaac cgcccgcgca tgcgcccttc aacttttcgg tgacaagtac agcgtgcgtc 180
ctgtagcagg cggcggggctc atggctttcc tccttcgagt cgtgccagg ttgcaggggc 240

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ccactgcatg gaggaggcct ctacaggac tatggtgctg ctctgggcag ggggattcca 300
 aaaggtgggt ggggagcagg tctcccccact cacgggagaa gtcaccaggc accgagaccg 360
 aaacattcca tacaattctac cgggtccgag ccateccgagc agtctcag 409

<210> 313

<211> 443

<212> DNA

<213> Mus musculus

<400> 313

gaattcggcc aaagaggcct accattattt cccaggcgcg ggccttgaac tctctgttct 60
 acattctgat ttccttgccct tctctagtgg gattgggact aaactcacag gcctcactat 120
 ctaatggagt ctgcctaagg ggtgggtggg caggcaaagg catctcatgc tctgatggct 180
 tccccaatag cttcctcatg gcagctgatt ctgtactgag actggcctat catttaagac 240
 actccctaga agacacttct caaaaatctc ctctggccgt ctgcttctgc tctctttttg 300
 ttgttctactg ctcagctgag tgggtgactc ctcaaaacct agtgtcacat agcagttgtc 360
 taggaacaga tatgtcctgg ggtcccaact ggccctgat tggcaaatgt gtctcagtag 420
 acaatcgagc taacctactc gag 443

<210> 314

<211> 491

<212> DNA

<213> Mus musculus

<400> 314

gaattcggcc aaagaggcct acagagggtt ggaaagacga aagcgtaatc acagaagaaa 60
 tgaatggtaa agagatgtca cccgggcatg gtcctgggga gactcgtatg gtggagcctg 120
 tggcacacaa agactccacc tccctgtctt ctgagagcag cagcagcagc agtgagagt 180
 aggaggatgt gggagagtac cagccccacc accgagtgcg cgagggcacc ataagggag 240
 agcaggagga gtgtgatgaa gagctggagg aagagcccg ccaaggagcc aaggtagtag 300
 agaggaggagc agcagtgccc gacgcccgtc cagacagaca agcaggggcc agtgtgctcc 360
 cagtagaaac agaggccag gaacatgtag ttgcccaaaa gttacctgga gaaaagggtg 420
 cacacggagg cactgctgag caggaccgga gagaagaagc agaggaagac ccgcacagag 480
 ttaaactcga g 491

<210> 315

<211> 593

<212> DNA

<213> Mus musculus

<400> 315

gaattcggcc aaagaggcct atgacactag acagagcaac tccagcggtta ccgctcccgc 60
 tcttggtttc tgggtttctc atcgagtcga atcttggtact ttggggtttt gctactgtca 120
 gaaggacttc tttctgcttc aagtgttga caacgcaccc ctttatcagg gtatcagagc 180
 atcgccacag aatgaagctg gtttccatca ccctgatgtt attgggttca ctgctttcc 240
 taggcgcgga cactgcaggg ccagatactc cttcgcagtt ccgaaagaag tgggaataagt 300
 gggcgctaag tcgtgggaag aggggaactac aagcatccag cagctaccct acgggactcg 360
 ctgatgagac gacagtctct acccagactc ttgatccatt cctggacgag cagaacacaa 420
 ctggccccct acaagccagc aatcagagcg aagcccacat tcgtgtcaaa cgctaccgcc 480
 agagcatgaa ccagggttcc cgcagcaatg gatgccgctt cgggacctgc acatttcaga 540
 aattggccca ccagatctac cagctaacag acaaagacaa ggtacagctc gag 593

<210> 316

<211> 431

<212> DNA

<213> Mus musculus

<400> 316

gaattcggcc aaagaggcct aattgaattc tagacctgcc ttcaactagg atggcctctc 60
 caggaaatgct gctggggctg ctgttgactt cctgtttaac tctctgctc agctgtcaga 120

```

actcaaataa ttttgcactc accaaccagc agaagagcat ccaccaggaa tcagatacaa 180
aggagaccag ggaagaggag gagctagaca ccgagatcct ggaggtgttc caccacaactc 240
aagagtggca gacccttcaa ccaggtcagg ctgttcctgc aggatcccat gtgcgaatga 300
acctacagac tggagtaaac gaggtgaagc tccaacaaga agacaaattt caaaataatc 360
tgaaaggatt taaaagaggc agaaggtcgg acatcaacgc caacacatac acatctcagg 420
atcctctcga g                                     431

```

<210> 317

<211> 474

<212> DNA

<213> Mus musculus

<400> 317

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ggaaaagtat ggcaaaccaa ataaacggaa aggttttaat gaaggattgt gggagataga 60
taacaatccg aaagtgaat tttcaagtca acaggcatca actaaacaat ccaatgcac 120
gtctgatgtt gaagtggaag aaaaagagac taacgtttca aaggaagaca ctgacagga 180
agaaaaggcc agcaatgagg atgtgactaa agcagttgac ataaccactc caaaagctgc 240
caggcgagga agaaagagaa aggctgaaaa acaagtagac actgaagagg cggaatggt 300
gactgcagca accgcttcta atgtgaaagc aagtcctaag agaggacgac ctgcagctac 360
tgaaagtcaag attcccaaac caagaggcag acctaaagtg gtaaagcagc cttgtccttc 420
agacggtgac atggttattg atgaagataa aagtaaaaaa aaggatgact cgag      474

```

<210> 318

<211> 407

<212> DNA

<213> Mus musculus

<400> 318

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gaattcggcc aaagaggcct aatttgaaga aagagtattt ggcactgcaa aaagctagca 60
tggcttctct aaaaaaaca atatctcaaa tcaaattgga atcagaaatg gaaacagact 120
gtaaagcgcc tacagcaggc agtgggtcaag agtgttccac ccaggagaag gtcagtgcac 180
aaggcccaca gtttgtgact ggagtgtatt tgaagattgt gagcggagag cctctaccgg 240
gcaggaaaaca agtcaaggat attttgcca caatctcaga agttgtttac attgatttgc 300
tagaaggaga tactgaatgc catgcccgat ttaaaacccc cgaggatgct caggcagtaa 360
tgaatgcaca gactgaaatt aggaagaagc acagttggaa cctcgag      407

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<210> 319

<211> 572

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (184)

<220>

<221> unsure

<222> (358)

<220>

<221> unsure

<222> (438)

<400> 319

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gaattcggcc aaagaggcct agtactactt gaaaaaatca ggtttaaaat gctctggctg 60
ctganaacaa tgtgccttat tcatgtactt ggtaaaatat tttgtttatt tggaccaaag 120

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agaatcctg aagctcacat gaatgttagc gagattatta aacactggga ttatccaagc 180
gaanaatatg aggttgtagc tgatgatggt tacattcttc caattaaccg aattcctcat 240
gggaagaaca atgctaatag tttagcccca aagatggtag tattttgtca gcatggcttg 300
cttgcaacac ctggagcaag gggtttccaat ccgctgtgca acagcctggc ctcatcnta 360
gcagatgctg ggtatgatgt gtggatggga agcagcagag gaagtacctg ggcaaagaaa 420
cacgtggccc tcaaccnnga ttctaaagaa ttctgggatt ttagttttga tcaaatgata 480
aaatatgacc ttccagctac cattaatttc attctggata aaacaggaca aaagcagatt 540
tactacattg gccattctca aggaaacctg ag 572

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<210> 320

<211> 353

<212> DNA

<213> Mus musculus

<400> 320

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atagccacca gctgagcatg gtccatgcct gggaggtaga gatggccctt atagattttt 60
ccaaagggtac attcacccaa ttcttccatg aaacgcacag cggaaagagg cagctcttta 120
gccttgctct tgggcttgta tgcattgagc atggacatct ccacattctg tctcttgacg 180
ggttttggct gcctctggac tgggtggtgat gaagacttct ggttattgag gcacacacag 240
atgaagaaga agaggaaggc gatagccagg ggaatggcca cacttggcac cagaatgtac 300
aagatttcca ttttattctt ctctttgga tctaggcctc tttggccgaa ttc 353

```

<210> 321

<211> 451

<212> DNA

<213> Homo sapiens

<400> 321

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gaattcagcc ttcattggcct aggtgtcttt ctgtgtaaga gtagtaacat ttataccttc 60
tcgttgcttg tggttgttct aacaataaat tatatggatt tctttggaag ttgattgtga 120
agaaaatgac taagaaaact ttttttttct ttttaggttg atggaaatca caatcttctg 180
acaaagcttt ctctggaaga ggaaaactgt cttattcagc tgaagtgtga aaaccttcaa 240
caaaaattag aacagatgga cgcagaaaaat aaagagcttg agaagaagct ggcaaaccac 300
gaagaatgtc ttaagcacag caatcttaag tttaaagaga aatctgcaga atatacagca 360
ttggccagac aactggaagc tgctttagaa gaaggaagac aaaaggttgc tgaagaaata 420
gagaaaatgt catctagaga gtgtgctcga g 451

```

<210> 322

<211> 307

<212> DNA

<213> Homo sapiens

<400> 322

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gcgattgaat tctagacctg cctcgagcct cccaaagtgc tgtgattaca ggagtgagct 60
gccacgcca gctacaagt tttcttttaa ctactgcttt agtcaaccat atcctctagc 120
ttctgatatt ttcatgttt gtgtcattt tctagatatt caacaatttc aaattagatt 180
ttctcttcga ctaaagtgga agaattttt cccgtttatt ttctacatgc taaagatttt 240
tattttcatt ttgtatttaa ttcttagtgt taccgtattg tcattagaaa atatgggctg 300
gtctgag 307

```

<210> 323

<211> 244

<212> DNA

<213> Homo sapiens

<400> 323

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gaattcggcc ttcattggcct aaaaattgt gtctttttt tggcaatgtt gtcttgccaa 60
tccctccctc cccagctct ccgaacagca ggatttccca acggcagctt gggaaaaaga 120
cccagtggca gcttggggaa aagaccagc gtccggttta gaagcaacgt gtatcagcca 180
actgagatgg ccgtcgtgct caacggtggg accatcccaa ctgctccgcc aagtcacact 240

```

cgag

244

<210> 324
 <211> 295
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (89)

<220>
 <221> unsure
 <222> (116)

<220>
 <221> unsure
 <222> (119)

<220>
 <221> unsure
 <222> (122) .. (123)

<220>
 <221> unsure
 <222> (125)

<220>
 <221> unsure
 <222> (127)

<220>
 <221> unsure
 <222> (140)

<220>
 <221> unsure
 <222> (155)

<220>
 <221> unsure
 <222> (157)

<400> 324
 gaattcggcc ttcattggcct aggttagaggt agtttcttaa aggttggttg ccagtgtgga 60
 atctgaaact atatcaatga actttctgna ctttattgca ttaaaatcca tcagtnatnc 120
 tnnnntttt tcttcttttn tttttttttt ttttngngag tctcattctg tctcccaggc 180
 cccagtgcag tggcacagtc acattcactg cagcctcaac ttctcaacte aagagatcct 240
 gccacctcag tgcccccact ccaccaccca tgagctgaga ttgcaggaaac tcgag 295

<210> 325
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 325
 gcaaacagac aaggcttaca ggtaggttca ggatctgcgc cttatcaagc aaattgtttt 60
 gcctatccaa cctgcggtgc caaaccata tactctccta tccctcaatac ctcctccac 120
 aacccctcca taaccatta ttcggttctg gatctcaaac atgctttctt tgcattcct 180
 ttgcatcctt catcccagcc tctctttgct ttcacttggg ctggccctga caccatcag 240

cctcagcaac ttacctgggc tgtactgcca caagccttca cggacagccc ccattacttc 300
agtagccctc gag 313

<210> 326
<211> 538
<212> DNA
<213> Homo sapiens

<400> 326
gaattcggcc ttcattggcct agtgtatata tatggaacat tattcagcca taatgaggaa 60
taaagcatga cacatgctac aacgtggata aatatcaaaa acattctgct aaatgaaaga 120
agccagacac taaagatcac atagtatata aatccattta tatgaaatat ccagaaatagg 180
taaatccata gcaacagaaa gcagattggt ggttgccagg ggctagttag aggggggaaat 240
gggactaaat gcttaatgaa taaggtttcc ttttgagatg agtttccttt cgacattttg 300
gaactagata aagggtgatga ttgtacacaa cactgaaatg ttcattttaa aatgttaatt 360
ttggctgggc acggtggctc atgectgtaa tcccagcact ttgggaggcc aaggggggca 420
aatcacaaag tcaggagtgc gagaccagcc tggccaacat ggtgaaaccc catctctcta 480
aaaatacaaa aaattagcca ggcgtggtgg tgggtgecta tagtcccagc tactcgag 538

<210> 327
<211> 326
<212> DNA
<213> Homo sapiens

<400> 327
gtcgaccttt ctataaatac atattgttta aaaaaaagca agaaaaaaag gaaaacaaag 60
gaaaataatcc ccaaagttgt tttctagatt tgtggcttta agaaaaacaa aacaaaacaa 120
acacattgtt tttctcagaa ccaggattct ctgagaggtc agagcatctc gctgtttttt 180
tgttgttgtt ttaaaatatt atgattttgc tacagaccag gcagggaaag agaccgggta 240
attggagggt gacctcggg gtgggggcag gacgccccgg tttcggcaca gcccggtcac 300
tcacggcctc tttggccctc gagaca 326

<210> 328
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (242) .. (243)

<220>
<221> unsure
<222> (425)

<400> 328
gaagacgctg ctgttgccgt tatggaacaa ggagtaccag aaaaggaaga gacaccacct 60
cctgttgaaac cagaagaaga agaagatact gaggatgctg gattggatga ttgggaagct 120
atggccagtg atgaggagac agaaaaagta gaaggaaaca cagttcatat agaagtaaaa 180
gaaaacctg aagaggagga ggaggaggaa gaagaggtag aagaagatga agaaagtga 240
gnngaggtgg aagaggaggg agaaagtga ggcagtgaag gtgatgagga agatgaaaag 300
gtgtcagatg agaaggattc agggaagaca ttagataaaa agccaagtaa agaaatgagc 360
tcagattctg aatatgactc tgatgatgat cggactaaag aagaaagggc ttatgacaaa 420
gcaanccggt cgacggcctc tttggccctc gagaca 456

<210> 329
<211> 461
<212> DNA
<213> Homo sapiens

<400> 329

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gaattcggcc aaagaggccg tgacgcccag tctcctcaag aagttccgag gagccagctg 60
gagattcaca ttttacctga ttgccttcac tgccggcatg gccgtcattg tggataaacc 120
ctgggtctctat gacatgaaga aagtttggga gggatatccc atacagagca ctatcccttc 180
cccgtattgg tactacatga ttgaactttc ctctactgg tccctgctct tcagcattgc 240
ctctgatgtc aagcgaaagg atttcaagga acagatcatc caccatgtgg ccaccatcat 300
tctcatcagc ttttcctggt ttgccaatta catccgagct gggactctaa tcatggctct 360
gcatgactct tccgattacc tgctggagtc agccaagatg ttttaactacg cgggatggaa 420
gaacacctgc aacaacatct tcactgtctt cgccattgtt t 461

```

<210> 330

<211> 390

<212> DNA

<213> Homo sapiens

<400> 330

```

gtcgaactatc gcccgcctctg ccgcctcaac ttccgectca atgtcgtgga gaacctcgcg 60
ttgctagtgc tcacttatgt ctccctctcc gaggacatca ccatccacga aaatgctttc 120
attgtgttca ttgcctcatc cctcgggcac atgctcctca cctgcattct ctggcggttg 180
accaagaagc acacagatcg caagtcttac agctggaaac agcggtctct catcatcaac 240
ttcatctcct tcttctcggc gctggctgtc tactttcggc acaacatgta ttgtgagget 300
ggagtgtaca ccatctttgc cactctggag tacactgttg tcttaaccaa catggcgctc 360
cacatgacgg cctctttggc cctcgagaca 390

```

<210> 331

<211> 452

<212> DNA

<213> Homo sapiens

<400> 331

```

gaattcggcc ttcattggcct acattgttct gtactagtgg ttctcaaagt gtggtccctg 60
gaccagcagc atcagcattg cttgggagct tgttaaaatc tcaggcccca tgacagggtc 120
attgaatcag acacttaagg atgaggcccg gaggtctgta ttttaacaag cctgtatgtg 180
attgtgattc aggcataaagt ttgaaaattg ctgcttcaaa ccagggttgg caaactatag 240
ctctycaagc tggatctgtt tttgtaaatg aagttttatt ggaatatagc cacaccatt 300
cattttatgga ttgtctgtgg ctacttttgt gctacaaagg cagagccaca aaggccaaac 360
tatttaccat ctgacccttt acagaaaatg tttgccaaact cctgctgtat accattgggt 420
tgaggaggaatg aaggaggtag gtgggactcg ag 452

```

<210> 332

<211> 535

<212> DNA

<213> Homo sapiens

<400> 332

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gaattcggcc ttcattggcct agacggcgagg gtcgcggggg gcttcggggg ggcctcggcc 60
caggccatcc agccctgtga accgaatgga gtcccacacg ctgttgaggt agttgtgggt 120
tcccctggcc tcgggctcgg cgcagggtca gcgtcctgc aggcggcgct tgcggtagcg 180
gctggcgaaa gtggagacgg acggcaggat ggattcactt ggcgacatgg cggggagctg 240
ggaagacgga caccggtgag tggctgcccg ggagggtggt tcggggcgcg gacaggcggg 300
catggttctg ccaaggattt tgctttattt atcgcaagat gggggtattt cctccttct 360
gcagtttata attgcatgaa ttagtgaggt gaattgagga tgcagtaaaa atatcttcaa 420
agattattaa attcgttatt ataaaaacac tagaagagtt tatgtgtgtg tatggaaagc 480
aggtatacat caataattct taatgaatac aagaaagaac taccaatctc tcgag 535

```

<210> 333

<211> 629

<212> DNA

<213> Homo sapiens

<220>

<221> unsure
<222> (200)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (364)

<220>
<221> unsure
<222> (393)

<220>
<221> unsure
<222> (571)

<220>
<221> unsure
<222> (594)

<400> 333
gaattcggcc ttcatggcct acatgcttgg tggagctaca gcagacctgt ggagtggag 60
agtaaggcgg gctctgcagg gcagtgggcc gggaccatga gagaggcggg tcagtctggg 120
ctccaagctc agcctctcgg attccccggg acccagggt tataatgcgc ttaaatecca 180
cgctctgccc gagagacagn angtcaccgt caccgtcacc gcctagcgc cttgaccgc 240
tcccactccg ctgcagcgga ggggtgtgta gggagaggac gcagggaggg aaaagcgtt 300
ggagggcaaa catcttttca taagcttttc cccttctata tgccatctct gatgggagcc 360
tctntagatc ttctgtccat ttactaattg ggntgttcga tttcttattg ttgagttgta 420
agtgtttttt aatggtcttg atgcccagaca ggtgttttgc aaatattttc tccgtctctg 480
gcttgtttct ccattctctt atttcttttc ccagagcaaa agtttttaat tgtaacgact 540
tcataccaat atcttcttct atggtagaaa nttgtctttt atgtacttta ctgntgtatc 600
tacaaagtaa ttgccaaacc caactcgag 629

<210> 334
<211> 329
<212> DNA
<213> Homo sapiens

<400> 334
gcttcatggc ctacaagcaa atcatttcaa tcctggagtc catgtcaaat gacacgagcc 60
ttcttgacaa gtgtaactca ttcttacaca acaaggcgga gtggagggtgc gaaattgagg 120
caactcttga gaggctaaag aaactagagc gtgatctcag ctttaaggag caggagctta 180
aagaacgaga aagacgttta aagatgtggg agcaaaagct gacagagcag tccaacaccc 240
cgcttctctt gcctcttgct gcaagaatgt ctgaggagtc ttactttgaa tctaaaacag 300
aggagtcaaa cagtgcagat tcaactcgag 329

<210> 335
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (131)

<400> 335
gaattcggcg ttcatggcct aaatcctctc taataaataa tataggccag gcgcggtggc 60


```

tcacacctgt aattccagca ctttgggagg ccgagggtggg cggatcatga ggtcaagaga 120
tcgagaccat ncctggacaa gatgatgaaa caaaaattag ctgggcgtgg tgggtgcacgc 180
tatagtccca gctactcagg aggttgaggc aggagaatag cttgaatccg ggagacggag 240
gttcagtgga gccgagatgg cgccactaca ctccagcctg gcaacagagc aagactctgt 300
ctcaatgaat aaataaataa ataatatagc cataaaatta tataattcca tgtttgtttt 360
tattagttta tttagaataa atatcttaaa ataagttttt atacaatctc attattttta 420
actcagaaaa taattcagat agaagttcgg atctccacga aataacattt aattgggtca 480
tcaaaaagag cataccatct ttattaaac actgccatta atgcttttat ttttgagat 540
agccagtctc ctcgag 556

```

<210> 336
 <211> 594
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (311)

<220>
 <221> unsure
 <222> (339)

<220>
 <221> unsure
 <222> (547)

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<400> 336
gaattcggcc ttcattggcct agttgaatta cctttatatt cagaaaaaag catattttta 60
ataaaaaatt gagttcctct aggttggtta aatgctcagt gaaaggttga agaattcttc 120
agaaagaaga aaggagcctc agagacagag acctgtctcc ccagaggaga tggagacaga 180
gtggagcctg actgcctgga gtcgttctgc tgggagaaaag cctgggttgc gtggcacatg 240
cgtggcaggc tggaaatgat accctgtggg tatgggtgctc tgttctgcat taattcaggc 300
tccaggctcc ntacatctcc tgtaaggacc agggagcang cagctgcagg agaaggggga 360
tgcggggggc catgggatta caaattctca cagcagccga gccagggcag agaaaccctc 420
cctgtgaagt gagttgaata gtgtccttcc cccatacccc ctaaaaactg acgtccactt 480
ggaacctcag aatgagaact tattgggaaa tagggatttt tgcagatgta atgatttgag 540
gatgtcnggg ttaaaatgat cagactggtg tctttataag agtaaaagct cgag 594

```

<210> 337
 <211> 331
 <212> DNA
 <213> Homo sapiens

```

<400> 337
gaattcggcc ttcattggcct actacaattc tcataacttc caaaatctat tttcttctc 60
ataacctgaca catatacctt ctgtccctta gatccttttg ctgactcac tcttttttga 120
gtctcccaaa ttaccattgt tcccggcctg gacttcaatc cagcctgtca cattattcct 180
gataccacac ctgaccccca tgactgtatc tctcggatac acctggcatt cgctccattt 240
ccccaaattt tcttcttttc tgttctctac cctgatcaca cctgggttag tgatggcagt 300
tccaccaggc ctaatcaaca cacacctga g 331

```

<210> 338
 <211> 522
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (31)

<400> 338

gaattcggcc ttcattggcct agctttgaag naactgtgat gtgtctgatt gcttaaaacc 60
aatcactttt gggacttaga agtggggaga aggattctct cagggccatg tggcatggtg 120
ccgtatcacc gcctgtcatt cacacatgca gggaggggcac cgggagaaaa tctttaaaat 180
attggcatgc cataagggaa gggtttatgg gttgtttttt tttttttttt tttttttgac 240
tgttcacttt ttgggggtgat taaacaaaaa aacctcagcc attattctct aacagctgtt 300
gtgccttacc tcaataaagt gccttttacc ataacacagc atcttttagac tctataaatc 360
tctttctatt tattgtgttt aaatgataaa tgctttccaa taaaatgaca tcatgggtct 420
ggagagtgtat gttcattttc tgagttactc ttaaatttgg ttgatttgaa tttttttatt 480
aggargttgt ataatatgaa tctcagccac aggcttctcg ag 522

<210> 339

<211> 565

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (105)

<400> 339

gaattcggcc ttcattggcct agagtttttg aacctttctt taaatttatt tttatagaaa 60
aggataaaca cattcttata catattatct gggaacgcag ggaangtatt atgtatccca 120
caggttctgt ttggtcttag agaagcacag aaacatgatt taaattgcta aacctgcaa 180
taccattaga aaaaaaatca gaaatttcct tggcacaaaa ctctccattg gttataaaaag 240
gactaagagg tggagaactg ttttatatat tttatataca caaagacatg tgtaaatgtt 300
tccagaattt gtcatagtct aactgaaaga aagtaaaagg atcacttagt gccttcttac 360
agtgaagtat aaggatcatt tagtgtcttg tttacaattt agcaatagat tatctggtag 420
aatttggagc agaaaggact cagttcatct catgggtaac tcaaccctaa tttgtcaaaa 480
ataaaaaaaa gtgacgtaaa aagagtctct ttaaataagt tgaaatgact ttttagtaaa 540
gttttatttg caagctgaac tcgag 565

<210> 340

<211> 616

<212> DNA

<213> Homo sapiens

<400> 340

gcacaaaacag gaaatggagg ttaagatgga ggaggaaact gaggttaagg aaagtgagaa 60
gcagcaggat agtcagcctg aagaagttat ggatgtgcta gagatgggtg agaattgcaa 120
acatgtaatt gctgaccagg aggtaatgga aactaatcga gttgaaagt tagaaccttc 180
agaaaaatgaa gctagcaaaag aattggaacc agaaatggaa tttgaaattg agccagataa 240
agaattgtaa tccctttctc ctgggaaaga gaatgtcagt gcttttagaca tggaaaagga 300
gtctgaggaa aaagaagaaa aagaatctga gccccacact gagcctgtgg ctcaacctca 360
gcctcagttc cagccccage ttcagcttca atcccagtc caaccagtac tccagtccca 420
gcctccctct cagcctgagg atttgtcatt agctgtttta cagccaacac cccaagttac 480
tcaggagcaa gggcatttac tacctgagag gaaggatttt cctgtagagt ctgtaaaact 540
cactgaggta ccagtagagc cagtcttgac agtacatcca gagagcaaga gcaaaaccaa 600
aaccaggagc ctcgag 616

<210> 341

<211> 344

<212> DNA

<213> Homo sapiens

<400> 341

gaattcggcc ttcattggcct agaaatcatt catatttatt atcattctgc atgttcagcc 60
tttttcttct cttagaatca gtcttgatta cttttaaagg gactttacta atctttatct 120
tcctctccat cctgccatca ctgacctgcc tcaatccctg ttcaactctc tcttattcag 180
tctcctatgt ggattgtccc actgccttct gtctctctgc cagccacaag gcagtctatt 240

taggatgcag atctgtttct gtcacccac tgctagaccc ccgcagtggc tcttcacaac 300
cagcctatag cagacaagct tttattagag cagacagact cgag 344

<210> 342

<211> 286

<212> DNA

<213> Homo sapiens

<400> 342

gaattcggcc ttcattggcct acaactgattg tttctcattt ttttccatct gctaccctcat 60
tatatctacc aagatatcaa tccacttaaat ttttttttcc tgaaccattt cacggtaagt 120
tgcagacagg atagcccttc accttaataa attcagtgcata taaactccaa gaacaagaac 180
atTTTTTtacc tgaccacagt gcataaattat caaaatcata atggtgcata ctactatcca 240
gttgtggtgt atgattttta tatgttatat agagagaaac gccgag 286

<210> 343

<211> 338

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (194)

<400> 343

gaattcggcc ttcattggcct agcttggctt tcccccgtaa ggaaatggcc ggggagctcc 60
aggggaccca ggcgcgctcg ctctggcgga gcctgggctg accagccagg acagcggggg 120
aaaccggaac aattctgcgc gaggtaggga ggccatggcg tccggcagta actggctctc 180
cgggggtgaat gtcttgctgg tgatggccta cgggagcctg gacttgaaag aggagattga 240
tattcgactc tccagggttc aggatataca gtatgagccc cagctccttg cagatgatga 300
tgctagacta ctacaactgg aaaccaggg ttctcgag 338

<210> 344

<211> 277

<212> DNA

<213> Mus musculus

<400> 344

gaattcggcc aaagaggcct aaataattgt tggcaaagat ccttttgctt ttttcggcat 60
gcaagctcct agcatctggc agtggggcca agaaaataag gtttatgcat gtatgatggg 120
tttcttctcg agcaacatga ttgagaacca gtgtatgtca acagggtgcat ttgagataac 180
tttaaatgat gtgccagtgt ggtctaagct ggaatctgga catcttccat ccatgcaaca 240
acttgttcaa attcttgaca atgaaatgaa actcgag 277

<210> 345

<211> 291

<212> DNA

<213> Mus musculus

<400> 345

gaattcggcc aaagaggcct aaccgcagca agttaagatc tgtgtctgtg gacctgaatg 60
ttgacctatc gcttcagatc gacataacctg atgcaactcag tgagagagat aaggtcaagt 120
ttacagtgcata caccaagacc aactgttcca catttcagag cccagagttt tctgttataa 180
ggcaacatga agactttgtg tggtgtcatg acactcttac tgaacaacag gattatgctg 240
gccttattat cctctctgct cctacaaagc cagactttga tggccctcga g 291

<210> 346

<211> 438

<212> DNA

<213> Mus musculus

<400> 346

gaattcggcc aaagaggatt gaattctaga tctgcctcga gactgttcgt gatgagtggg 60
 ccctggaaaa gactaataat cctcttaagt tgcgcttcg tgcgaagagc gactcagaac 120
 agagacatca accctcatac tccaattcaa caatcctggg aagtgtctaa tgaggagggg 180
 gacactgtat ggtcgaccac cgaggtacaa ccccatgga cctggtggcc cgacctcaca 240
 cctgatattt gtaagttagt agcaggggtca cttacctggg acctccccga ccatacggac 300
 cttcataaac caccacctga taaacagtgt gtcccagagc ggatagggag cacgtttgga 360
 tgctcaggac agttctaccg agccaatctt cggctctgag aattttatgt ttgccctggc 420
 caaggccaac cactcgag 438

<210> 347

<211> 664

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (9)

<220>

<221> unsure

<222> (108)

<220>

<221> unsure

<222> (125)

<400> 347

gaattcggnc aaagaggcct aggagcttgg aagactttgc aactttggac caagcacaat 60
 gaagtattcc ctctgggctc tgetgcttgc cgtgctgggc acacagcngc tgggaagcct 120
 gtgtntccacc gtctcggtccc agagggttccg aggaaggata cagcaggaac gaaaaaacat 180
 cagacccaat attatccttg tgctcactga cgaccaggat gtggagctgg gttccctgca 240
 agtcatgaac aagacgagaa agatcatgga acaggggtgg gccaccttca ccaatgcctt 300
 tgtgaccacg cccatgtgct gtccatcacg ctcatccatg ctccactggga agtacgtgca 360
 taaccacaat gtctacacca acaatgagaa ctgctcgtct ccctcgtggc aggcaatgca 420
 cgagcctcgg acctttgctg tgtatctcaa caacaccggc tacagaacag ctttttttgg 480
 aaaatacctc aatgaataca atggcagcta catccctcct ggatggcgag aatggctcgg 540
 attaatcaag aattctcgtt tctataatta cactgtttgt cgcaacggca tcaaggagaa 600
 gcatggattt gattatgcaa aggattactt cacagactta atcactaacg agagcatact 660
 cgag 664

<210> 348

<211> 459

<212> DNA

<213> Mus musculus

<400> 348

gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
 aaagccaacc aaccaacca ttaaaaacga gctggcccac ttatgttgat acgtcagtgt 120
 atagtattga atttgtcct catctggctc ccctggggcc tcctcaccac aaccttttga 180
 acttcacagg cagagatgga gttgggtccag cacattggtg tccctgccag taagatcatc 240
 tgtgccaaac cctgtaagca agttgcacag atcaagtatg ctgccaaagca cggggtgagg 300
 ctgctgagct tcgacaatga agtggagctg gccaaaggtg tcaagagcca cccagtgcc 360
 aagatgggtc tgtgcattgc taccaggac tcccactctc tgaatcacct gagcctgagg 420
 tttggggcgt cgtgaaatc ctgcagacat ctgctcgag 459

<210> 349

<211> 568

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (120)

<220>

<221> unsure

<222> (165)

<220>

<221> unsure

<222> (391)

<220>

<221> unsure

<222> (478)

<400> 349

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ctcggaggat ggtgccgtg tactgcctaa atgtgttggc ggcggtggtg ccacagggtg 60
agatgctgca tgagaagata tctgagaatg gaaagcatgg acaggatgcg gaatcacgtn 120
atccacttga gggggaggct gagtctgggg aggggcatth ccatnagagt gatggcaagc 180
tgaggcttga tgggtgcagt gtctttgtcaa ggaagcatac ggagggtggca tgtagtgccg 240
acatgacgaa agagaaggct gtggaggggg ctggggctgg ggctgggcaa ccatgctgga 300
gccatagcca tctattgata atggctgagt cggggcagca gcagcctgat ggccaaagac 360
tgcggcgcgc gcaagatggg caagtgtcgt ngtctccgaa ctgcccggaa gctccgcagt 420
caccgacggg accagaagtg gcattgacaaa cagtacaaga aagcccactt gggcacancc 480
ctgaaggcca atccgttttg ggggtgcctt catgcaaagg gaattgtgct ggaaaaagca 540
ggggaagtag gcctcttttg ccgaattc 568

```

<210> 350

<211> 447

<212> DNA

<213> Mus musculus

<400> 350

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gaattcggcc aaagaggcct aaaagacaac ggacaagcgc catttaccat cattcctgtg 60
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gagtcctgtg atgaggtcac ggggccatgt agctgccagg actgctccat cgtctgtggc 180
cccaagcccc agccccacc cctctctatg ccctggagga tctggggctt ggatgccatg 240
tatgtcatca tgtgggtcac ctacgtggca tttctgtttg tgttttttgg agcactgttg 300
gcagtgtggt gccacagaag gcggtacttt gtgtctgagt aactcctcat tgacagtaac 360
atcgcttttt ctgtgaatag cagtacaaa ggggaagcct catgctgtga cccacttggt 420
gcagcatttg atgactgtca actcgag 447

```

<210> 351

<211> 156

<212> DNA

<213> Mus musculus

<400> 351

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gaattcggcc aaagaggcct aattgaattc tagacctacc ctggcttgtg gatgactggg 60
acttgatcac cagacagaag cagctttttt atcttctgc caagaagaat gtggattcca 120
ttttggagga ttatgcaaat tataagaagt ctcgag 156

```

<210> 352

<211> 434

<212> DNA

<213> Mus musculus

<400> 352

```

gaattcggcc aaagaggcct agccaagcag gagagaagag gctttcagtt cataaagacc 60

```

```

aaccagcaca ctgcaaggac catgaggcca ctgtgtatga cctactgggtg gcttggactg 120
ctggccacgg tccgagctgc tacaggccca gaggctgacg ttgagggcac agaggaggtt 180
cacagagaga gtacatttac ctcaacaggt acaagcgggc aggtgagtc cccgacaagt 240
gcacctacac ttctattgtg cccagcagc gggtcacagg tgccatttgt gtcaactcca 300
aggagcctga ggtgcacctg gagaaccgtg tgcacaagca ggagctggag ctgctcaaca 360
atgagctgct taagcagaag cggcagatcg agacgctgca gcagctggta gaggtagaca 420
gaggcactct cgag 434

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<210> 353

<211> 471

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (9)

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (30)..(31)

<400> 353

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gaattcggnc aaggaggecn acttttttggg ncctttcttca gttcctggac tgatttcctt 60
caaagttag. cggttctgtgg atgcacagac agagagatga gatgactaaa gctttttgctg 120
ccctgaaaag catgatgggt tccagatggt gaccattgag ccagaagggt tatattcacc 180
tgagtgtgag ttgtctaagt gtaattgttc ctatgcccta gttctttaac gttaacataa 240
aaatgcattt attagttttg aaccttttag aattttgcag ttaggagaat ctgaattatt 300
agaaagacct tgaactttta aagtgttaat ttttttaaac caggagaaat ttacttttta 360
tataaatatt tagtattagg atattaacct gagattttga agacaaagaa aggaaagtgtg 420
tgatttaaca gtgaggtatt tgtgtgttct atttacacag gaaatctcga g 471

```

<210> 354

<211> 421

<212> DNA

<213> Mus musculus

<400> 354

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gaattcagag gccccagtct gtagtcccgg aagaatgaag atttaaatac gaggccatgg 60
ctaaacatct gaagttcatt gccaggacag tgatggttca ggaggggaac gtggaagggtg 120
cctaccggac cctgaacaga atcctcacca cggatgggct taccgaagtc ataagtcgac 180
gacgctacta tgagaagcct tgccgcccgc gccagcggga gagctatgaa acatgccgga 240
ggatctacaa catggaaatg gctcgaaaga ttaacttctt gatgcgaaag aaccgtgcag 300
accctgtggc gggctgtgta ggcttggggc taggcaccca cacacccatg tccaactcct 360
ttctttatcc agccaagtgc tggtactttt ctctataata aaaactccat cacaactcga 420
g 421

```

<210> 355

<211> 408

<212> DNA

<213> Mus musculus

<400> 355

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gaattcggcc aaagaggcct aaagggtttc aagctttcag ttttgggaca ggtatggatg 60
ataaagggca cctgagcaat gaggaagcac ccaaggctat caaaccacc agtaaggagt 120
tcaggaaaac ctgggggtttt cgaagaacca cgattgccaa acgtgagggt gcaggagaca 180
cggaggtgga cccagtgag cagcaaccac agcagcataa cctctccctg cggcgcagtg 240

```

gacggcaacc aaaacgtact gagagggtag aagagtttct taccacgggt cggcgccgag 300
 ggaaaaagaa tgtgccggtg tccctggagg attccagtga gccacatct tccacagtca 360
 ctgatgtgga gacagcttcc gaggggagcg ttgaaagcag ttctcgag 408

<210> 356
 <211> 434
 <212> DNA
 <213> Mus musculus

<400> 356
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 cettgettcc acacctggga ctgttctctg gcctggctct gcaactatcc cctccctct 120
 ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttgg 180
 aaatcagcac tatggctaac gtctctggtg gggatgtaac ctatacagtg acggtccccg 240
 tgaacgattc agtcagtgcc gtgatcctga aagcagtga ggaggacgac agcccagtgg 300
 gcacctggag tggaaacatat gagaagtga acgacagcag tgtctactat aacttgacat 360
 cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
 aaaacaattc cgag 434

<210> 357
 <211> 502
 <212> DNA
 <213> Mus musculus

<400> 357
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 acacagttta actgcagaaa gaccattcct tgcaagcaat attgcttga ggtgcagaca 120
 aggtgtccat tcatattgcc cgacaatgac gaagtcattt acggaggcct ctccagcttc 180
 atctgcacag gcgaagggtga agtttacctt tgaatgccta agaagaaatg actattggct 240
 ctacgaaacc ttctaacca atgatgaacc cgaatgctgt gacatcagga gcgaggagca 300
 aaccgcaccc agacccaaag gaaccgtgga cagaagagac tctgttccca ggacatcgct 360
 cacagtgtcc tcggccacta gactgtgccc cggccggctg aagctgtgtg tactcgctct 420
 cattctctc caccagtgct tcacggcttc cgcagcgcag aactccacgg gactgggcct 480
 ggggtggctc cccacgctcg ag 502

<210> 358
 <211> 411
 <212> DNA
 <213> Mus musculus

<400> 358
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 ttagaaacat tgttataata tattatttta ctgcttaaat ttcaagtccc gaggtagatg 180
 gtcgagagac gaggttctctg tactggaaaa gccttttccct ctgtccctgt ccttctggta 240
 gcacgcatgg gctgcgttgc gtttgggtcc gtttgggtcc ttttcttccg tgcctcttca 300
 ttaccaggtt ttctttcttc ctctgaccac attcttcaaa gagagtattc tttacctcag 360
 gtttactgga caaaaacaaa acaaaacaaa accaatagtg ataacctoga g 411

<210> 359
 <211> 427
 <212> DNA
 <213> Mus musculus

<400> 359
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 cctcccagcc ctgccactga tgetgatgct gctctccatg cctccccct gcgccccgca 120
 agcctctggg atccggggag atgctctgga gaagtcctgt cttcagcaac cctggactg 180
 tgatgatata tacgccagg gctatcagga agacggcgtg tatctcatct accctatgg 240
 cccagtggtg ccggtgcccc tcttctgcga catgacaact gagggcgga agtggaagg 300

tttccagaaa agattcaacg gctcagtgag tttcttccgg ggctggagcg actacaagct 360
 gggctttggc cgtgctgacg gggagtactg gctggggctg cagaacctgc acctactgac 420
 actcgag 427

<210> 360
 <211> 580
 <212> DNA
 <213> Homo sapiens

<400> 360
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 ctcgctcgcc ctcagcgagg ccccgcccat gacggaggcg ggtgccggcg ccgttgccgc 120
 cgctgccgtc gcaggggggg agtcgggttc ccagaaagta gcttgatgag tgtccaaagt 180
 agcagtggaa gtttgagggg gccgcatctt tgggtcccagc tctccacgtc tccaaccccg 240
 ggctcggcgg cgcgggccag gtccctgctg aatcacacgc cgccatccgg gaggccagg 300
 gaaggtgcaa tggatgagct tcatagtctg gatccaagaa ggcaagagtt attggaagct 360
 agattttactg gagggtgcaag tgggagcact ggaagtacgg gcagttgcag tgttgagct 420
 aaagcctcaa caaataacga aagctctaat cacagttttg gaagcttggg atctttaagt 480
 gacaaagaat cagagacacc ggagaagaaa caatcggaat catccagggg aagaaagaga 540
 aaagcagaaa accagaatga aagtagtcag ggcactcgag 580

<210> 361
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 361
 gaattcggcc ttcatggcct agacagacca aggtaaattg tttttgataa ttacagaagt 60
 gtgattttctt aatcagcagc tgtcaaacat agtgttctct aattttaaag cttgaacact 120
 aaattataaa ttggagaggt tggataaatt acgggtcatat ctctagaaac acaagtcttt 180
 agtagcaaaa aagaaattag caagagaaga aaactgttca gtactttgaa aggaaaaagt 240
 tttcagtgat agttttttta gatgaaaatt aacatgataa agaagggact cgag 294

<210> 362
 <211> 174
 <212> DNA
 <213> Homo sapiens

<400> 362
 gcgattgaat tctagacctg cctcgagaca ggtgccatta taggaacagc ccctctttgt 60
 aatcttcacc ccagcctcac tccagtcagc ctgccctgtt ggactgggat gacccttctc 120
 cccatcacca ctctgtggac cttgtctctg acgatggcta agcccaaact cgag 174

<210> 363
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 363
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 caaccctttc ccaggagtct gcctctgctc ttttgcctggc ttctcgtttt ctctctcact 120
 ctccacgttg gattccaggt ccaagtggct atctgggctg tcgctctctt ctgtgtctct 180
 cccgcctgaa ctgtcacctt cttctctggt gctctcaggg tcaactggctt ccttgctttg 240
 ctcttctctg acatcttctt cgacattcat ctttccatct ttgtaggaaa gcaaacgcct 300
 gtcattctta tctagcagca agccatcatc cagatcatct gctgacatat gttttggttt 360
 cttaacattt tcatctctat cctttccaag cattcttcga agtctctcag cctccagctt 420
 cctgaggtgc tctctctctt cctttgccaa ttctgcctcc gtcttcatcc tgttagaggg 480
 ctgcgccttc atttcaaagc caagctcgcg aaccatcatg tcatatgcat cgggcttggg 540
 ttttctcttt ttgtctct 558

<210> 364
 <211> 233
 <212> DNA
 <213> Homo sapiens

<400> 364
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 acagacacaa aagaatttga tctcccataa gcaactgtga aattacaata acagatcctg 120
 ggaagttcta caattctaata tcagtttttt caagggggaa catggcacaag gtgttcagtt 180
 tcatccttgt taccaccgct ctgataatgg gcagggaaat ttcggcgctc gag 233

<210> 365
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 365
 gctagagggt gaagctggcg gagcaggagg atggggcggg atagactaga gaacaagacc 60
 tctgtctccg tagcatcctg gagcagtcct aatgccagaa tggataaccg ttttgctaca 120
 gcatttgtaa ttgcttgtgt gcttagcctc atttccacca tctacatggc agcctccatt 180
 ggcacagact tctggtatga atatcgaagt ccagttcaag aaaattccag tgatttgaat 240
 aaaagcatct gggatgaatt cacaagtga ctcgag 276

<210> 366
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 366
 gaattcggcc aaagaggcct aatccagtca gactctggca acttttaggt ggtactttct 60
 attttaacac ctcaagggtt aagcagaaga ataaggagaa ggataagtcg aaggggaagg 120
 cgcctgaaga ggacgaagag gagaggagac gccgtgagcg ggacgaccag atgtaccgag 180
 agcggctgcg caccttgctg gtcacgcggt ttgtcatgag cctcctgaat gctctcagca 240
 ccagcggagg cagcatttcc tggaacgact ttgtccacga gatgctggcc aagggcgagg 300
 tgcagcgcgt ccaggtggtg cctgatgaac tcgag 335

<210> 367
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 367
 gggggataat gtgtttcagc gatgaaccac ccatggcctt actacagaca tatttccact 60
 ttgaaaaatgt gtgtgagtgt acatgtctgt gtgtgaggca gagattagaa agtgtaagt 120
 tgtgcgtttt cattttacac atcttacatt ttcccttaat ttgtttgaaa gcctgttttg 180
 tttgtggctt ccattcctgg aagtcctcat agttgttagt ggtgaagatg gaacagatgt 240
 gtccaacccg ggggactcct gccctcaggg acacactcga g 281

<210> 368
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 368
 gaattcggcc ttcattggcct aggtactgt cctctctgat caacctggat tgcagggtccc 60
 aaggcacttt ttgtttttat ggcattatcc tttgcccggt atgaaatcat ctggctactt 120
 cgtcatgcag ataactgccc aaagaagagt gcagacgact ttatagataa gcacattgct 180
 gaattaatat ttacatgga agaacttaga gcacatgtga ggaaatacgg acctgtaagt 240
 cagaggtatt acgtgcagta cctttctggc tttgatgctg ttgtcccaa tgaactcgag 300

<210> 369
 <211> 484
 <212> DNA
 <213> Homo sapiens

<400> 369
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 aactgggtgct gccagcttta taatgggtggc ccacctagcc atcaatgttt ccaaggcccg 120
 caagaagtac aaagtggagt atcctatcat gtacagcacg gacctgaaa atgggcacat 180
 cttcaactgc attcagcgag cccaccagaa cacgttggaa gtgtatcctc cttcttatt 240
 tttcttagct gttggagggtg tttaccaccc gcgtatagct tctggcctgg gcttggcctg 300
 gattggttga cgagttcttt atgcttatgg ctattacacg ggagaaccca gcaagcgtag 360
 tctgaggagcc ctgggggtcca tgcctctcct gggcttgggt ggcacaactg tgtgctctgc 420
 tttccagcat cttgggtggg ttaaaagtgg cttgggcagt ggacccaaat gctgccaact 480
 cgag 484

<210> 370
 <211> 316
 <212> DNA
 <213> Homo sapiens

<400> 370
 gaattcggcc ttcattggcct acaaccccat catcacccag ttcttcccca ccttgetgct 60
 gtggtgcttc tgggcccctc tttccaccat cgtctactac tcagccttct ttgaagccca 120
 ctggacacgc tctggggaga acaggacaac catgcacaag tgctacactt tctcatctt 180
 catggtgctg ctctaccct cgtggggact gacgagcctg gacctcttct tccgtgggt 240
 ctttgataag aaattcttgg ctgaggcagc tattcgggtt gagtgtgtgt tctgcccga 300
 caacagcgcc ctcgag 316

<210> 371
 <211> 255
 <212> DNA
 <213> Gallus sp.

<400> 371
 gaattcggcc aaagaggcct acaagaaaa gaaagaaagg gaaagaagag gaaaaacatt 60
 tataaatgcc attgtctaatt ttttttccca tttaaacgta acatgattat ctacatatat 120
 ctacaaatat ctacaattat ctacactgtt tgcagatacy attctttggt tatcttact 180
 tttcccttat gttgcaacta tcaagaaaaa aatgtttgta taccctttga aagaaataat 240
 aaatataacc tcgag 255

<210> 372
 <211> 253
 <212> DNA
 <213> Gallus sp.

<400> 372
 gaattcggcc aaagaggcct aggtgggtga aagaacaggt tgcaattgaa ttctgggttt 60
 cagagctgga ataagatagt tttttccccc caggttgac gttttccccc ccccatgtt 120
 gcacgctatg ggggttttggc tgggtatcagc attactccac caaggggctg tttgctgtct 180
 ggggtacttg caggtgataa gaatgttagg gcaggaccaa aatatgtcaa cagtgatact 240
 ggaaacactc gag 253

<210> 373
 <211> 287
 <212> DNA
 <213> Gallus sp.

<400> 373
 gaattcggcc aaagaggcct aggacattgc tccgtgagaa aatgaagact ctgcaagctg 60

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cttttttctt ggttgcgctt gtaccttttg tgaagccagc accacctata cagcaagatt 120
caccaagtt ttatgagatc gttgatgcag attttgccac gggaagcctg atccaacagg 180
attatgaaat gctgcccagg gatacaataa aggatggaac aaatgtttct cttgacactg 240
ccctgagact gcaagcagat gacagcgaac tgagtgccag actcgag 287

```

<210> 374

<211> 427

<212> DNA

<213> Gallus sp.

<400> 374

```

gaattcggcc aaagaggcct aaagcgacag aggactagag atgaagatct ttttattatt 60
caccttttcc acgtttttct tgtctgcttt tgaacaagca gccgcatctg ctcactatga 120
caagatttta actcatagtc gaataagggc acgcgaccaa ggcccaaatg tctgtgccct 180
tcagcaagtt atgggaacca aaaagaaata cttcagcacc tgcagaaact ggtaccaggg 240
atccatctgt ggaaagaaaag caactgtctt atatgagtgc tgtcctggct acatgaagat 300
ggatgggtatg agaggatgtc ctgcagttgc tcctattgat catgtatatg gcactcttgg 360
tattgtggga gctacctcca ctcagcagta ttctgacatg tcaaagctga gagaagagat 420
actcgag 427

```

<210> 375

<211> 204

<212> DNA

<213> Gallus sp.

<220>

<221> unsure

<222> (74)

<220>

<221> unsure

<222> (76)

<220>

<221> unsure

<222> (115) .. (116)

<400> 375

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gaattcggcc aaagaggcct agtttttggc tttttttttt tcttttttct ataaataatg 60
aagacaccga catntncttt gtgtgtgtgt gtgtgtgtgt gtgtctcctc gtgttnnaca 120
agccttatct cagaactggg catctcccag ttctccctgc tccttctcga gcttcatttg 180
agttaccaac cccaccact cgag 204

```

<210> 376

<211> 279

<212> DNA

<213> Gallus sp.

<220>

<221> unsure

<222> (41)

<400> 376

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gaattcggcc aaagaggcct aatgacagac tttttttttt nctgggtgttg tttaaagtcg 60
atttccccc ccctccccc ccatgtgtta attttgcgag tcctttttatg cgcgcgcccc 120
tttccceatt ggcacacgcc aaatttgggt ccttacagct cgcgacaaaag gagatgcac 180
tattttaaga tgcctttttg tttctgtttc gttctgtttg ttctttctgg tgttgttttt 240
ggttgttttc ccccttcgg agcagcaggt agtctcgag 279

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<210> 377

<211> 375
 <212> DNA
 <213> Gallus sp.

<400> 377
 gaattcgcca aagaggccta aactctcatg gttcacagc tgcagacaag ttgccgtgca 60
 tcttggtgga ctatcggagt ttgcatcctg gcggccgcgc tctttccagg gctgcaagct 120
 cagactgtct tagtcaatga cacagtctcg gggtagattg ggacagacgt cgtcctgcac 180
 tgcagcttca ccaaccgct cccaatgtg aagatcacgc aggtcacgtg gcagaaggct 240
 accaacggca ccaagcagaa tgtggccatc tacaaccccg ccatgggggt ctccatcctc 300
 ccacctaca aagaacgggt gactttccgg aaccttcct tcaaagatgg caccattcag 360
 ctctctcggc tcgag 375

<210> 378
 <211> 396
 <212> DNA
 <213> Gallus sp.

<400> 378
 gaattcgccc aaagaggcct aaaaagctgc agtgactgta agatcatgca aaagctagca 60
 gtctatgttt atatttacct gttcatgcag atcgcgggtg atccgggtggc tctggatggc 120
 agtagtcagc ccacagagaa cgctgaaaaa gacggactgt gcaatgcttg tacgtggaga 180
 cagaatacaa aatcctccag aatagaagcc ataaaaatc aaatcctcag caaactgcgc 240
 ctggaacaag cacctaacat tagcaggac gttattaagc agcttttacc caaagctcct 300
 ccactgcagg aactgattga tcagtatgat gtccagagg acgacagtag cgatggctct 360
 ttggaagacg atgactatca taccacaaca ctcgag 396

<210> 379
 <211> 293
 <212> DNA
 <213> Gallus sp.

<400> 379
 gaattcgccc aaagaggcct acgtcgattg aattctagac ctgcctcgag agaagagtga 60
 aaatgatgac aagacttcct gcgctgcata cctgtggat ccttctctt tcatatctga 120
 caatggaagt tatggctaca gaacacatac aggaatttgc atgctttact gactatgccg 180
 aaaagctggt ttgtcactgg aaggtgcctg aacagctgaa ctgctccaaa gacttcctgc 240
 tctactacag gaaggaactt tttcctccca gaaatgtgtg tggcccccgc gag 293

<210> 380
 <211> 297
 <212> DNA
 <213> Gallus sp.

<400> 380
 gaattcgccc aaagaggcct agtcattgtc tactactctc tgatgtcggg cgtcatctgg 60
 ttgtcatgc tgacctacgc ctggcacagc tccttcaagg cgctggggcac cactaccag 120
 ccgctgctgg gcaagacctc ctacttccac ctcatcact ggtccatccc ttctgtactc 180
 accgtggcca tcttggtgtg ggcacagggt gatggtgact ccgtcagcgg tatctgcttc 240
 gtgggttaca agaactatcg ctaccgtgcc ggctttgtcc tggcaccag actcgag 297

<210> 381
 <211> 272
 <212> DNA
 <213> Gallus sp.

<400> 381
 gaattcgccc aaagaggcct atttgggaac aaattgaagc tctaccaact ctgactcagg 60
 ctgagaagaa gatgaagaag cttattctgc ttttctcatt gttcttggtt ccagcattct 120
 cttataaaga aatcagaaa ataaacaaa acttttcttc aaacaatacc agtcataaac 180

gacttaagag agactggata tggaaccgaa tgcataatcag agaagagatt gattcaccat 240
taccacatca cgttggcaag ctcacgctcg ag 272

<210> 382

<211> 641

<212> DNA

<213> Gallus sp.

<400> 382

gaattcggcc aaagaggcct actgtaacat ataaaagctg ttagcagttc ctgtggccag 60
aaagcttcac aaccagcaga gttttgttct ttgggagttt gtaataagag acactccttc 120
acaaagggtc atatcatcac ataggagagt gttatatata ctgggagaac aatagactgt 180
attcattgtg gtattateca aagatctgtt ttctactgcc ctgacttaaa gcagagtacc 240
tctgtggcct atctttcccc ttggcccca agatgacaat aatagctgca atcagttgtg 300
ttttcttatt ttccattctc tgtgaaacaa gtgcattagt gttacccaac tccactgacc 360
tactcctgtc aaacaataat ttactgaca ttgagacggc ttggcagct catctggact 420
cagcaaaaat tcccaaagcc aggcggaagc gctacatttc acagaatgac atgattgcca 480
ttcttgatta tcataatcaa gtcagaggca aagtcttccc acctgcttcc aacatggaat 540
atatggtttg ggatgaaact cttgccaaat ctgcagaggc ttgggctgct acatgcattt 600
gggaccatgg accttctac ttactgagat tcttgggcgc g 641

<210> 383

<211> 706

<212> DNA

<213> Homo sapiens

<400> 383

ctcgagttgt tccgtgcatt ctgtaagaag ctagataaca caggcagtaa ggatctgaca 60
ggcaaagggtg atagcatttg gaatgatcat taagagcttg tcattctaaa aatctgaaaa 120
aaaaaataat tgaatttgag aaaatagaaa gctgaattac taatgatgct gatctttgat 180
tacagactat ttgggatatt agattgtcct acctaatctt acaacagtag tccaatccag 240
ctgtaaaattt cctatctcca caaatttaac atggcagctg acatatatta atatatttta 300
gcatcagagt atcttctaag aattgttcaa cttaaaaatc cactttcaaa ttgttgctt 360
tatgttatac aactgttgta atacttcata ctgataaacc gctttcaaat aagtaagtag 420
ttaaccttca aaccaagaac tgacagggtat tattacctcc attttgaga tggaaaaaca 480
ggatgaaaga ttaaaatttt tgtccaagac cataaaagcc agctgtggat ccctgggtga 540
atcttggagt tgctaacttc tgtattttgc ttagtttatt gagtaacaat accttaattt 600
aaaaaaaata ttttcagcca aagaggtgag ggaatagata tgtgcgcttg caaggaagtc 660
tgcagggtta ctccatatca catcataggc ctctttggcc gaattc 706

<210> 384

<211> 481

<212> DNA

<213> Homo sapiens

<400> 384

gttgacgggc tggaggagga agaagagggt gatccccgga tccagggaga actggagaag 60
ttaaatcagt ccacggatga tatcaacaga cgggagactg aacttgagga tgctcgtcag 120
aagttccgct ctgttctggt tgaagcaacg gtgaaactgg atgaactggt gaagaaaatt 180
ggcaaagctg tggaaagactc caaccctac tgggatgcac ggagggtggc gaggcaggct 240
cagctggaag ctcaaaaagc cagcaggac ctccagaggg ccacagaggt gctccgcgcc 300
gccaaggaga ccatctccct ggccgagcag cggctgctgg aggatgacaa gcggcagttc 360
gactccgcct ggcaggagat gctgaatctc gccactcaga gggatcatgga ggcggagcag 420
accaagacca ggagcgagct ggtgcataag gaggtcgacg gcctcttttg ccctcgagac 480
a 481

<210> 385

<211> 589

<212> DNA

<213> Homo sapiens

```

<400> 385
gaattcggcc ttcattggcct aagggtgagt ctttcaatac attttcggat aatggctatg 60
catggagtggt cagttccctg gatgggtttt aacatgctta tattacaagc agaaattgta 120
gtgtttgcac tgtcaacaga cattaggaca gaggatttat caacagaact cacaaggga 180
tgtttcttaa ttgctcccgat tatagcagt ctgcaaacag atacagggac agaattttta 240
ttaaaaagca tgggcacact gctattttca gaagaggtag atgaaacaat tttctcagat 300
aaatgtgaca caggatgtt ttcacagaa ctatgcacag ataagtcagt ggcagtttct 360
ggaagtttac ttgggttaag agactgctgt agtacagtgg tggctctccg gaggtgggca 420
gacttggtgc taggagatct acagtttggg ttgacaataa tgacaccagt cgaaccttcc 480
atttttggtt caggggtaga agagacttct aagtttggag gcccttctct tgagctgagc 540
ggaggaggca accgggtctc tcttagaggtc tggaagagat gggctcgag 589

```

<210> 386

<211> 305

<212> DNA

<213> Homo sapiens

```

<400> 386
gaattcggcc aaagaggcct atcagacttc aaccacagtt gtgattgttt ttagtttgtt 60
agctgcctgg agtgttatct taagaaagca gaagcaccat catttgcaca ctccctatag 120
atcacacacc ttaacctga ctttttttgc tccagttttt cagaagaagt gaagtcaaga 180
tgaagaacca tttgcttttc tggggagtc tggcggtttt tattaaggct gttcatgtga 240
aagcccaaga agatgaaagg attgttcttg ttgacaacaa atgtaagtgt gcccggttcc 300
tcgag 305

```

<210> 387

<211> 197

<212> DNA

<213> Homo sapiens

```

<400> 387
gaattcggcc ttcattggcct actgcctcag atttcgtgca gttggttgc gtttgcctga 60
ggattccatt cctgcttgct cagatgtgtc gacacaaaat tatccgcttt ctggctcagg 120
ttttggtaag ctggttgggt gtccacgtca gccttgacgt cccggcgga gctgtcaaaa 180
aggccctgc tctcgag 197

```

<210> 388

<211> 346

<212> DNA

<213> Homo sapiens

```

<400> 388
gaattcggcc ttcattggcct caagtgaata tagtcagtc ccaaagatgg agagcttgag 60
ttctcacaga attgatgaag atggagaaaa cacacagatt gaggatacgg aacctatgtc 120
tccagttctc aattctaaat ttgttccctg tgaaaatgat agtatcctga tgaatccagc 180
acaggatggt gaagtacaac tgagtcagaa tgatgacaaa acaaaggagg atgatacaga 240
caccagggat gacattagta ttttagccac tggttgcaag ggcagagaag aaacggtagc 300
agaagatgtt tgtattgac tcacttgtga ttcgtggagt ctcgag 346

```

<210> 389

<211> 502

<212> DNA

<213> Mus musculus

```

<400> 389
gaattcggcc aaagaggcct agttccggat atctgtggtg acattttcta tctgcttcag 60
cagcatgtgg cagctactac taccaacagc tctggtactt acagctttct ctggcattca 120
agctggtctc caaaaggctg tgggtgaacct agaccccaag tgggtcaggg tgcttgagga 180
agacagcgtg accctcagat gccaaaggac tttctcccc gaggacaatt ctatcaagt 240
gttccataac gaaagcctca tcccacacca ggaagccaac tatgtcatcc aaagtgccag 300

```

```

agttaaggac agtggaatgt acagggtgcc gacagccctc tccacgatca gtgacccagt 360
gcaactagag gtccatattg gctggctatt gcttcagacc actaagtggc tgttccagga 420
gggggacccc attcatctga gatgccacag ttggcaaac agacctgtac ggaagggtcac 480
ctatttacag caacggctcg ag                                     502

```

<210> 390

<211> 455

<212> DNA

<213> Mus musculus

<400> 390

```

gaattcggcc aaagaggcct aaagaaagtg aaaaaaatct tttgatgagc acattgtaca 60
aacttcatga tcgattggcc cagattgcag gagaccatga atgtggcagt tctagtcaaa 120
ggatgctttc tgtccaagaa gcagctgcat atttaaaaaa tttaggtcct gagtatgaag 180
atgtatttaa tacttcattg ctgtggattt taaaaaatgg gaaagatgtt ggaataaggt 240
gtgttgggta cgggcctgag gaagacttga caaacataac tgatgtgcag tttttacagt 300
ccaccaggcc ccagatgccc ttctggcgcc gtttccggcg tgctttcatt actgtgaccc 360
atagggttatt gttgttatgt ttaggtgtag tgctgggtgtg cggttgcctc cggtacatga 420
gataccgctg gactaaggag gaaacgggac tccgag                                     455

```

<210> 391

<211> 600

<212> DNA

<213> Mus musculus

<400> 391

```

gaattcggca aagaggccta cacgatgccc ctatcagatg tgttgaatac tgtccagaag 60
tgaacgtgat ggtaactgga agttggggtc agacagttaa gctgtgggac cccagaactc 120
cgtgtaatgc tgggactttc tcccagccgg aaaagggtcta caccctgtca gtgtctgggg 180
acaggctgat tgtgggcacg gcgggcccgc gagtgcctgt gtgggacttg cggaacatgg 240
gctatgtgca gcagcggagg gagtccagcc tgaagtacca gactcgtgc atccgagcct 300
tcccgaacaa gcagggttat gtgttgagct ccacgaagg ccgagtggct gtggaatact 360
tggaccggag ccttgagggtg cagaagaaga agtacgcctt caagtgccac aggcataaagg 420
agaacacat tgagcagatt taccagtcac acgccatctc ctttcacaac atccacaaca 480
cgtttgccac aggtgggttc gatggattcg tcaatatttg ggacccattt aacaagaagc 540
gcctgtgcca gtccatcgg taccaccacca gcacgccttc ccttgccctc agtaatgacg 600

```

<210> 392

<211> 976

<212> DNA

<213> Mus musculus

<400> 392

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gaattcgcgg ccgcgtcgac gctcccgaag tgctgggatt aaataaacct ttttaaaaag 60
aggcacttta gaacacttgg aagaaccttt cagtgcctgt actgaaatcc aaagcgtagc 120
ctataagtag agcagatagg acatagggtt tacacagttt attgaggtat taaatttact 180
ttgcagtgga tattttttaa tatatacttg agctgacgtg tttttaactg agtttttttg 240
tttttttttt ttaatgttac tcatctggat tgctctttta ataaactctt cttgtatagg 300
aatgaaatca ccaggagaac agctggtgtg cctgccacca gtggaggcct ttcctaataga 360
tccccgggtc atcaatagag aaagaagctg tgattaccag tcccatcct ctcctctac 420
agacactcta aaaggcacta ccgaggagga cactgtaaca gcaggtcagg cgatggcagt 480
ggaagagcag tgtgtgccag cagcagagct tcctagagt agcgagatta cagaaaatac 540
agtgttagga gatttccatc ttttctctag gaaggtagaa gagattttga aggagaagaa 600
tgtttcatat gttagtcaa tttccacacc tatcttttca gcacaagaga agatgaatcg 660
cctttctgag ttcatacatt ctaatacttc taaagctggt gttgaggaat ttgtagatgg 720
tttgcagtga aaactaaata ctgttggtat tacagcatca gctaagggtg tgagtgttgc 780
gccagcagtt agcgtaatc attcccatgc tgcagcagca ttggcttctc tgggaaggcg 840
tgttgtgtca atttccctaa gtgacttcag tgctaaagaa ctttttgagc cgctctgttc 900
tgaacattta aaagataaca actctaataga acagtatccc tcttcagtgg aagtagaaat 960
gaatcggctc cctata                                     976

```

<210> 393

<211> 436

<212> DNA

<213> Mus musculus

<400> 393

```

gaattcggcc aaagaggcct agttcctcat cactgttccct gtgtccacag tcatcaatta 60
tagacccccc aacatgcgcc ctgaagacag aatgttccat atcagagctg tgatcttgag 120
agccctctcc ttggctttcc tgctgagtct ccgaggagct ggggccatca aggcggacca 180
tgtgtcaact tatgccgctg ttgtacagac gcatagacca acaggggagt ttatgtttga 240
atttgatgaa gatgagatgt tctatgtgga tctggacaag aaggagaccg tctggcatct 300
ggaggagttt ggccaagcct tttcctttga ggctcagggc gggctggcta acattgctat 360
attgaacaac aacttgaata ccttgatcca gcgttccaac cacactcagg ccaccaacga 420
ccccccatca ctcgag                                     436

```

<210> 394

<211> 159

<212> DNA

<213> Mus musculus

<400> 394

```

gaattcgcgg ccgcgtcgac ggcccaacca cctctaatag gtctattttt atacatgctt 60
ttccatatta catttccaaa ttactaaaag tattttaact taatttttac actccagtca 120
cagatggaat taagaaacac cattccttcc caactcgag                                     159

```

<210> 395

<211> 532

<212> DNA

<213> Mus musculus

<400> 395

```

gaattcgcgg ccgcgtcgac ttgagcttgt gaggttagcc acagtttaca gaggggtgaa 60
agtctaggta ggcttactta actgtcagcc ctctcacctt ttctgaaggga cattttctgg 120
agccttcttt gaatttcat caatgtctga agaaattgtt tatgcaaatc tcaaaatcca 180
ggaccctgat aaaaaagaag aaaccagaa gtctgacaaa tgtgggggaa aagtatccgc 240
cgatgcttcc cattcacagc aaaaaacagt cttgattctg attcttctat gccttctgct 300
gttcattgga atgggggtct taggaggcat cttttatata actttggcaa cagaaatgat 360
aaaatcgaat caattgcaaa gggccaagga agaacttcag gaaaatgttt ccctacagct 420
gaagcacaat ctcaacagct ccaagaaaat caagaacctt tctgccatgc tgcaaagcac 480
agccaccag ctgtgccgag agctgtatag caaagaacca gagcacccta ta                                     532

```

<210> 396

<211> 725

<212> DNA

<213> Mus musculus

<400> 396

```

gaattcgcgg ccgcgtcgac cctctccaaa gtccttgaa atagactcta accatggaat 60
ggacctgggt ctttctcttc ctctgtcag taactgcagg tgtccactcc caggttcagc 120
tgcagcagtc tggagctgag ctgatgaagc ctggggcctc agtgaagctt tctgcaagg 180
ctactggcta cacattcact ggctactgga tagagtgggt aaagcagagg cctggacatg 240
gccttgagtg gattggagag attttacctg gaagtggtag tactaactac aatgagaagt 300
tcaagggcaa ggccacattc actgcagata catcctccaa cacagcctac atgcaactca 360
gcagcctgac aactgaggac tctgccatct attactgtgc agccttatcc ttgtactact 420
ggggccaagg caccactctc acagtctcct cagccaaaac aacagcccca tcggtctatc 480
cactggcccc tgtgtgtgga ggtacaactg gctcctcggg gactctagga tgcttggtca 540
agggttattt ccctgagcca gtgacctga cctggaactc tggatccctg tccagtgggt 600
tgcacacctt ccagctctc ctgcagtctg gcctctacac cctcagcagc tcagtgactg 660
taacctcgaa cacctggccc agccagacca tcacctgcaa tgtggcccac ccggtctctc 720
ctata                                     725

```


<210> 397
 <211> 276
 <212> DNA
 <213> Mus musculus

<400> 397
 gaattcggcg cgcgctcgac cctaaaccgt cgattgaatt ctattttatt tttactctc 60
 ttctcctcag acacagtggc actgcttacc tccaaatggg gtgatcgctc cctcagttag 120
 cggcggctcc cactgcgctg tgggtagtgt gtgactgtgg ctgtactgta tagtgaacat 180
 agttggcata tctttgtttg aagtttgttg gtgattccac caaactgggtg taaaaaaca 240
 aaacaaaaaa acccacaac cacccaaaaa ctcgag 276

<210> 398
 <211> 404
 <212> DNA
 <213> Mus musculus

<400> 398
 gaattcggcc aaagaggcct atgcttagcc aaaacgctga tcttgaccta cccagctcct 60
 tcattttaca gaagaagaaa atgaggctta gtggatgtct tctcactatt agtgcacttg 120
 gagcttttat ttatttcttt gagatagtat ctgcctattt agaccaggct gaccacagaa 180
 tagaaggcac tcctccagcc tttagcctccg tgcctggagg agctgccata cccagcacct 240
 taattttatgt catttattct agggaaaccc aaaactttct tgacagagta gaggagccag 300
 atgaactaag gcagcaaat acatggaact tgatttctct gtatgttggg aggactccaa 360
 gcagttagct ctctatggct agaccccgag cccaaaacct cgag 404

<210> 399
 <211> 592
 <212> DNA
 <213> Mus musculus

<400> 399
 gaattcggcc aaagaggcct acatgaatct acttctgate cttacctttg ttgcagctgc 60
 tgttgetgcc ccttttgatg atgatgacaa gatcgttggg ggtacatct gtgaggagaa 120
 ttctgtcccc taccaggtgt ccttgaatc tggctaccac ttctgcggtg gctccctcat 180
 cagcgaacag tgggtggtgt cagcaggta ctgctacaag tcccgcaccc aggtgagact 240
 gggagagcac aacatcgaaag tcctggaggg gaatgaacag ttcatcaatg cagccaagat 300
 catccgccac cccaaatata acagccggac tctggacaat gacatcctgc tgatcaagct 360
 ctccctcacct gccgtcatca attcccgcgt gtccgccatc tctctgcccc ctgccctccc 420
 agctgctggc accgagtcct tcatctccgc tggggcaaca ctctgagttc tgggtgccgac 480
 taccagagcg agctgcagtg cctggatgct cctgtgctga gccaggetga gtgtgaagcc 540
 tcctaccctg gaaagattac caacaacatg ttctgtgtgg gctttcctcg ag 592

<210> 400
 <211> 435
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (332)

<400> 400
 gaattcggcc aaagaggcct agacggaact gccacgatgc tgccactttg gactctttca 60
 ctgctgctgg gagcagtagc aggaagaaag gtttctacg aaagactcgg ctgcttcagt 120
 gatgactccc catggtcagg aattacggaa agaccctccc atatattgcc ttggtctcca 180
 aaagatgtca acaccgctt cctcctatat actaatgaga acccaaacaa ctttcaagaa 240
 gttgcccagc attcatcaag catcagtggc tccaatttca aaacaaatag aaaaactcgc 300
 tttattattc atggattcat agacaaggga gnagaaaact ggctggccaa tgtgtgcaag 360
 aatctgttca aggtggaaag tgtgaactgt atctgtgtgg actggaaagg tggctcccca 420

actggataca tcgag

435

<210> 401

<211> 581

<212> DNA

<213> Mus musculus

<400> 401

```

gaattcgcgg ccgcgctcgac gttagtccac tcatgaacat ggccctgaaa taggagctac 60
atgttgcaag aaccatctta tgacaaggga attcagtgcc ctcaacaatt aacactatgt 120
cagtaataaa ctgttgttca taaaacagtt tcaactgttc caataaggac acagcatatt 180
cggatttgat ctgcctttcc tcttgagtgg acatgattgt attccattaa tatctccaag 240
aacagattag aaaagtccgt cttgatggaa ggtcaaatga atacttcaaa agcaaaggag 300
ggagttcact tgctgttata tgcagcattc agaacagAAC ccacacagcc gctctgaata 360
tcttgttaca ggctcacaat ctttgctagg tcatcctgag ctacagtttt tcaacagatt 420
ctccaaacat cctgctcaaa tttgcacctg ggaagctcat gaatagggaa aatacaggag 480
gtagattttg ttgcaacatc ttatgttcag taggtcttct gcagaactcg tccccggtcg 540
ccagctcac ccgcgcgctc ccgcgggcgg ttctccctat a 581

```

<210> 402

<211> 751

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (402)

<220>

<221> unsure

<222> (416)

<220>

<221> unsure

<222> (537)

<400> 402

```

gaattttaat taagaattcg ccgcgcgctc gacgaatctg tttgctagtt ggagaaaaag 60
atagggcttg tatatcacat ttcattttca agagtgtaat ctttaagtta ttcacatgca 120
tgtttttagca ctggctagtc aacaatagat agcattcggc tgaatgagga cttttaaggt 180
aaaagctttt gaaagtttta aatttgtaag tgtacttgaa tacaatttat cagtacatca 240
gatgtttttc caagttggta agttaccag cctctggagg aaggctcctg agacaaggaa 300
taaatcgctt tttcctttat aatggaacgt gagacctacc ctgcagggtt gtttagtaag 360
ctagccaaag tattggggat tgcagtttcc gtttgttggt tnattgtcca aacatngttc 420
tgtgaaagaa atgtaaaaaa atctttcctt gaaactgagt atgatagctc atacccttaa 480
tcttagcact ctgggaaggc aggagtgggt cgataaacct ctcctttaa gaaaagnaca 540
gctacagaag tctcagaaga ggccagagca gtgtctatac ctatcaccct tcaactcagag 600
cttgccgaag cacaattttc ataattccct ctaattctta tcgttccagc gggagtctct 660
tgtctggctt catctttata gcatcccagg aaagggaaca ttaaacataa atgtgtgtga 720
agtgatagtt tggttctccc agcgcgcgca g 751

```

<210> 403

<211> 114

<212> DNA

<213> Mus musculus

<400> 403

```

gaattcgcgg ccgcgctcgac attgaattct atacctgcct ctagcacaca tggttaagac 60
tctagcctgc tttaccattt acaattttgt aagtaacag ctccctatag tgag 114

```

<210> 404
 <211> 570
 <212> DNA
 <213> Mus musculus

<400> 404
 gaattcgcgg ccgcgtcgac gggtcaggta tggaaatcaac acaaacaaga tggagaacaa 60
 gataaggcct gactttctggc cgtgcccagt ctggggccact gttggcacat agccgactgt 120
 gtccatagga agctgaaaaag cgtgtgcctt tgcaatggac aggcaacacc tggttttcta 180
 cactgaaccc ctaccaagaa gctcaaggte aagctgtggc ggggtggcctc ggctgtgccc 240
 catccccgcc cacaccctg cccctgccc agctctctgt gacagtcatt ccagtaaagg 300
 ctcatacctt tttctgagtg cccaggctaa gaatgcatac cagtctgcca aaccttcatac 360
 ccaaatagtg agaaatcgtc tttccacaag agactttagg gtccaaagag ttacagaaag 420
 cctgactcag gcagagggaag cagcctactc cactgtctta ggaaaaaatt gcaacccctc 480
 ccaacagccc ctgctcaaaag cttttatcgc caaagcaca gtaagttctc agacacagcc 540
 tgcgtcgacg cggcccgaa tctccctata 570

<210> 405
 <211> 182
 <212> DNA
 <213> Mus musculus

<400> 405
 gaattcgcgg ccgcgtcgac atcatggcta ccttgcgtgt cccactctcg gtggtctctg 60
 tccttcttgc tgggcaatt cagacctcg atgcaggctc ctatgggtgc aatgtggaag 120
 acagtatctg ctgccaggac tacatccgtc accctctgcc atcacgttta gtgagtcgta 180
 tt 182

<210> 406
 <211> 545
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (184)

<400> 406
 gaattcgcgg ccgcgtcgac ccggaacccc aaccgctgca actctccgcg tccgaaatcc 60
 agcatcccgc agtctgcgct cgcaccatgc agctaaagt tccctgtttt gtgtccttgg 120
 gaaccaggca gcctgttttg aagaagctcc atgtttctag cgggttcttt tctggtcttg 180
 gtcngttctt gctgtgttg agcagcctct gtgtgcctc tgcagagact gaagtcgggtg 240
 caatgggtgg cagcaatgtg gtgtcagct gcattgacce ccacagacgc catttcaact 300
 tgagtgtgtc gtatgtctat tggcaaatcg aaaaccaga agtttcggtg acttactacc 360
 tgccttaca gtctccagg atcaatgtgg acagtctcta caagaacagg ggccatctgt 420
 ccctggactc catgaagcag ggttaactct ctctgtacct gaagaatgtc acccctcagg 480
 ataccaggga gttcacatgc cgggtattta tgaatacagt cacagagtta gtcgagatcc 540
 tcgag 545

<210> 407
 <211> 331
 <212> DNA
 <213> Gallus sp.

<400> 407
 gaattcggcc aaagaggcct agtgttatat atactgggag aacaatagac tgtattcatt 60
 gtgggtattat ccaaagatct gttttctact gccctgactt aaagcagagt acctctgtgg 120
 cctatctttc ccctttggcc ccaagatgac aataatagct gcaatcagtt gtgttttctt 180
 attttcatt ctctgtgaaa caagtgcatt agtgttacct aactccactg acctactcct 240
 gtcaacaat aatttcactg acattgagac ggctttggca gctcatctgg actcagcaa 300

aattcccaaa gccaggcgga gtgcgctcga g

331

<210> 408

<211> 282

<212> DNA

<213> Gallus sp.

<220>

<221> unsure

<222> (141)

<220>

<221> unsure

<222> (143)

<220>

<221> unsure

<222> (145)

<400> 408

gaattcggcc aaagaggcct ataggcctct ttggccggcc aaagaggcgt actcagtgtgta 60
tatatgtaac tgtcattgat aagagttaca taggcataca gagggagaac atctgtatgt 120
tgcattgatag tttgtttaga ngnanaacta ggattgagtt actcaaatta gtgtttgtga 180
attatagaac taagctttac cttcaaatga aaatttcaaa ttactttttg gtttgtgcat 240
atttttttaa tttgtagttc tgtattagtc gtagcgctcg ag 282

<210> 409

<211> 311

<212> DNA

<213> Gallus sp.

<400> 409

gaattcggcc aagaggccta agaagaatgt ggacgaatcc aaaccttcgc tgccttttag 60
ctctagcttt tttatgttta acaagcttag tgcattagtcg agagataggt tctcaagggg 120
accccagaa tttaaaatgt gtcacgcaca atttacataa aatggctctgt acttgggaga 180
tctcatctga aagaagacat ggacaaactg agttttgtta cgctacagag tggttttaaa 240
ctaaggagga gagagtcgag attccagtc cagagagctc caccactgtg aaaataacca 300
catcactcga g 311

<210> 410

<211> 382

<212> DNA

<213> Gallus sp.

<400> 410

gaattcggcc aaagaggcct agtgcattta aatccaggcc atttgcagtt gctgacttca 60
cgcattacag aaagtgaatc caaacaccag gttggaacat ctttgatccc tggagaagtt 120
cagcctttgt cttcattggg tgtagacct tgtgtatata aatgataggt gcaaccgaag 180
gaggatgttc actctcatct tttttcttgt agcaatgcgt ctgtgcacgg aggaatgcag 240
ggttctaggg cactctgacc agtgcaggat gccaccgttg ccatctccct catccgatta 300
caggagtaac atgttcatcc ctggggagga gtttcagtca caacagcagc agctgcagca 360
acagcagcag cagggcctcg ag 382

<210> 411

<211> 521

<212> DNA

<213> Gallus sp.

<400> 411

gaattcggcc aaagaggcct atcaaaatga agatactgaa atggactttg ggtatgctgt 60

```

tgttcctact gttgtctatc gggcgctgta cagaaccatc gacctcaac aaaacatccc 120
aacggagaca tcctcgttcc acagatggtg gagaggaagg gaggaaatgt ggttacacct 180
tcttggtccc agaacaaaaa atcacagggc caatctgtgt gaataacgaa ccagggtactg 240
gtaacagaaa agatgaagtc acaagaatgg acatagagaa cttgaaggat gtgctgtcca 300
agcaaaaacg tgagattgac atcttgagct tgggtgtaga cgtggatgga aacattgtga 360
atgaagtaaa gttgctgagg aaagaaagcc gtaacatgaa ctctcgggtc actcaactct 420
atatgcaact cttgcatgag ataatccgaa agcgcgataa ctacttgaa ctttcccaac 480
tgaaaaataa agtcctcaat gtaacaacag aaagtctcga g 521

```

<210> 412
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (215)

```

<400> 412
gtttgggggg ttatttatct tgccgtgctt tatccctgct tggacacctg agcatctgat 60
tcctgtcccc ctggtgccat ctggcctggc tggagccagg aacaggaggg acatttcccc 120
agaatccgca tgtttcccca gtgattacac tccactgcca ccgtggtgcc tggctttaac 180
tcccaccctt gctatgactc ctctctgcag agacncgact ggcggctcca gcagggacta 240
cctttcttat aaaccagggg ggaccacaca cacacacaca cactactcga 300
g 301

```

<210> 413
 <211> 413
 <212> DNA
 <213> Homo sapiens

```

<400> 413
gaattcggcc aaagagcatc tgaagatcag ctattagaag agaagatca gttaagtctt 60
ttggacctga tcagcttgat acaagaacta ctgatttcaa cttctttggc ttaattctct 120
cggaaacgat gaaatataca agttatatct tggcttttca gctctgcac gttttgggtt 180
ctcttggttg ttaactgcag gacccatatt taaaagaagc agaaaacctt aagaaatatt 240
ttaatgcagg tcattcagat gtacgggata atggaactct tttcttaggc attttgaaga 300
attgaaaga ggagagtgc agaaaaataa tgcagagcca aattctcttc ttttacttca 360
aactttttta aaacttttaa gatgaccaga gcatccaaaa gagtgtggtc gag 413

```

<210> 414
 <211> 496
 <212> DNA
 <213> Homo sapiens

```

<400> 414
gaattcggcc aaagagccct agcttcagga tcctgaaagg ttttgcctta cttcctgaag 60
acctgaacac cgctcccata aagccatggc ttgccttgga tttcagcggc acaaggctca 120
gctgaacctg gctaccagga cctggccctg cactctcctg ttttttcttc tcttcatecc 180
tgtcttctgc aaagcaatgc acgtggccca gcctgctgtg gtactggcca gcagccgagg 240
catcgccagc tttgtgtgtg agtatgcac tccaggcaaa gccactgagg tccgggtgac 300
agtgtctcgg caggctgaca gccagggtgac tgaagtctgt gcggcaacct acatgatggg 360
gaatgagttg accttcctag atgattccat ctgcacgggc acctccagtg gaaatcaagt 420
gaacctcact atccaaggac tgagggccat ggacacggga ctctacatct gcaagggtga 480
gctcatgtac ccccg 496

```

<210> 415
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 415

```

gaattcggcc aaagaggcct agaacaaccc agaaaccttc acctctcatg ctgaagctca 60
cacccttgcc ctccaagatg aagggtttctg cagcgcttct gtgcctgctg ctcatggcag 120
ccactttcag cctcaggga cttgtctcagc cagattcagt ttccattcca atcacctgct 180
gctttaacgt gatcaatagg aaaattccta tccagaggct ggagagctac acaagaatca 240
ccaacatcca atgtcccaag gaagctgtga tcttcaagac catgggtcgag 290

```

<210> 416

<211> 529

<212> DNA

<213> Homo sapiens

<400> 416

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttgcc tggtactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcaagt ttttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gctgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag 529

```

<210> 417

<211> 385

<212> DNA

<213> Homo sapiens

<400> 417

```

gaattcggcc aaagaggcct aggcaaacgc agaacgtttc agagccatga ggatgcttct 60
gcatttgagt ttgctagctc ttggagctgc ctacgtgtat gccatcecca cagaaattcc 120
cacaagtgca ttggtgaaag agaccttgcc actgctttct actcatcgaa ctctgctgat 180
agccaatgag actctgagga ttctgttcc tgtacataaa aatcaccaac tgtgcactga 240
agaaatcttt caggaatag gcacactgga gagtcaaact gtgcaagggg gtactgtgga 300
aagactattc aaaaacttgt ccttaataaa gaaatacatt gacggccaaa aaaaaaagtg 360
tggagaagaa agacggagag tcgag 385

```

<210> 418

<211> 415

<212> DNA

<213> Homo sapiens

<400> 418

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttgcc tggtactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag 415

```

<210> 419

<211> 439

<212> DNA

<213> Homo sapiens

<400> 419

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180

```

```

ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ctttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcgag                                     439

```

<210> 420

<211> 415

<212> DNA

<213> Homo sapiens

<400> 420

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ctttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag      415

```

<210> 421

<211> 529

<212> DNA

<213> Homo sapiens

<400> 421

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ctttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
cgaagacatg aatgtcaagt ttttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gtcgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag      529

```

<210> 422

<211> 386

<212> DNA

<213> Homo sapiens

<400> 422

```

gaattcggcc aaagaggcct aaagacatta caccatctga attgcctgca aaccaggtt 60
gtgtgcattc aaaagagcat tctattaag ctaccttaat ttggcgctta ttttcttaa 120
tcatgtttct gacaatcata gtgtgtggaa tgggtgctgc tttaagtgc ataagagcta 180
actgccatca agagccatca gtatgtcttc aagctgcatg cccagaaagc tggattgggt 240
ttcaaagaaa gtgtttctat tttctgatg acaccaagaa ctggacatca agtcagaggt 300
tttgtgactc acaagatgct gatcttgctc aggttgaaag cttccaggaa ctgaatttcc 360
tgttgagata taaaggcccc gtcgag                                     386

```

<210> 423

<211> 443

<212> DNA

<213> Homo sapiens

<400> 423

```

gaattcggcc aaagagtctg gatggcatct acttcgtatg actattgcag agtgcccatg 60
gaagacgggg ataagcgctg taagcttctg ctggggatag gaattctggt gtcctgac 120
atcgtgattc tgggggtgcc cttgattatc ttcaaccatca aggccaacag cgaggcctgc 180
cgggacggcc ttcgggcagt gatggagtgt cgcaatgtca cccatctcct gcaacaagag 240

```

```

ctgaccgagg cccagaaggg ctttcaggat gtggaggccc agccgccacc tgcaaccaca 300
ctgtgatggc cctaattggt tccctggatg cagagaaggc ccaaggacaa aagaaagtgg 360
aggagcttga gggagagatc actacattaa accataagct tcaggacgcg tctgcagagg 420
tggaagcgact gagaagagtc gag                                     443

```

<210> 424

<211> 455

<212> DNA

<213> Homo sapiens

<400> 424

```

gaattcggcc aaagaggcct atctgaagat cagctattag aagagaaaga tcagttaagt 60
cctttggacc tgatcagctt gatacaagaa ctactgattt caacttcttt ggcttaattc 120
tctcggaaac gatgaaatat acaagttata tcttggtctt tcagctctgc atcgttttgg 180
gttctcttgg ctgttactgc caggacccat atgtaaaaga agcagaaaac cttaagaaat 240
attttaatgc aggtcattca gatgtagcgg ataattggaac tcttttctta ggcattttga 300
agaattggaa agaggagagt gacagaaaaa taatgcagag ccaaattgtc tccttttact 360
tcaaactttt taaaaacttt aaagatgacc agagcatcca aaagagtgtg gagaccatca 420
aggaagacat gaattgcaag tttttcaata gcaag                                     455

```

<210> 425

<211> 365

<212> DNA

<213> Homo sapiens

<400> 425

```

gaattcggcc aaagaggcct aggtggaaat tccagcaaga atagagggtga agacaagcca 60
ccaggactca ggagggaaac gctgaccatt agaaacctct gcataagacg ttgtaaggag 120
gaaaataaaa gagagaaaaa cacaagattt taaacaagaa acctacgaac ccagctctgg 180
aaagagccac ctttcccaaa atggatatgt ttctctctac ctgggttttc ttagccctct 240
acttttcaag acaccaagtg agaggccaac cagaccaccc gtgaggaggt cgtttgaatt 300
ccaaagatgc tggctatatt accctctccc gttaccccca ggactacccc tcccaccttg 360
tcgag                                     365

```

<210> 426

<211> 557

<212> DNA

<213> Homo sapiens

<400> 426

```

gaattcggcc aaagaggcct acaattataa aatgtcagct ttttaaggaaa actgtggaat 60
atattttcca gaaataaaaa gagatccagg cagatattta catagtgtgc ctgaattctgt 120
gaaaaaatgg cttcgacagc taaagaatgc tgggaaaatt cttctgttaa ttaccagttc 180
tcacagtgat tactgtagac ttctctgcga atatatctct gggaatgatt ttacagacct 240
ttttgacatt gtgattacaa atgcattgaa gcctgggttc ttctccact tacciaagtc 300
gagacctttc cggacactcg agaattgatga ggagcaggag gcaactgcat ctctggataa 360
acctggctgg tactcccaag ggaacgctgt ccacctctat gaacttctga agaaaatgac 420
tgccaacact gaacccaagg ttgtttattt tgggtgacagc atgcattcag atattttccc 480
agctcgtcac tatagtaatt gggagacagt cctcatctcg gaagaactca gaggggatga 540
aggcagcagg agtcgag                                     557

```

<210> 427

<211> 468

<212> DNA

<213> Homo sapiens

<400> 427

```

gaattcggcc aaagaggcct aacaggatca acacatttca tctgggcttc ttaaattctaa 60
atctttaaaa tgactaagtt ttcttccttt tctctgtttt tcctaatagt tggggcttat 120
atgactcatg tgtgtttcaa tatggaaatt attggaggga aagaagtgtc acctcattcc 180

```



```

aggccattta tggcctccat ccagtatggc ggacatcacg tttgtggagg tgttctgatt 240
gatccacagt ggggtctgac agcagccac tgccaatatac ggtttaccac aggccagtct 300
cccactgtgg ttttaggcgc acactctctc tcaaagaatg aggcctccaa acaaacactg 360
gagatcaaaa aatttatacc attctcaaga gttacatcac atcctcaatc aaatgatatac 420
atgctggtta agcttcaaac agccgcaaaa ctcaataaac atgtcgag 468

```

<210> 428

<211> 333

<212> DNA

<213> Homo sapiens

<400> 428

```

gaattcggcc aaagaggcct acaagcttct aggacaagag ccaggaagaa accaccggaa 60
ggaaccatct cactgtgtgt aaacatgact tccaagctgg ccgtggctct cttggcagcc 120
ttcctgattt ctgcagctct gtgtgaaggt gcagttttgc caaggagtgc taaagaactt 180
agatgtcagt gcataaagac atactccaaa cttttccacc ccaaatttat caaagaactg 240
agagtgattg agagtggacc aactgcgc aacacagaaa ttattgtaaa gctttctgat 300
ggaagagagc tctgtctgga cccaaggtc gag 333

```

<210> 429

<211> 307

<212> DNA

<213> Homo sapiens

<400> 429

```

gaattcggcc aaagaggcct agctgacact cgagcccaca ttccgtcacc tgtcagaat 60
catgcaggtc tccactgctg cccttgcgtt cctcctctgc accatggctc tctgcaacca 120
gttctctgca tcaactgctg ctgacacgcc gaccgcctgc tgcttcagct acacctcccg 180
gcagattcca cagaatttca tagctgacta ctttgagacg agcagccagt gctccaagcc 240
cgggtgctac ttctaacca agcgaagccg gcagggtctgt gctgacccca gtgagggtgtg 300
ggtcgag 307

```

<210> 430

<211> 342

<212> DNA

<213> Homo sapiens

<400> 430

```

gaattcggcc aaagaggcct acaaacgct gattaaaaga agcacggtat gatgacaaa 60
cataaaaagt gttttataat tgttgggtgt ttaataacaa ctaatattat tactctgata 120
gttaaaactaa ctgcagattc tcagagttta tgcccctatg attggattgg ttccaaaac 180
aaatgctatt atttctctaa agaagaagga gattggaatt caagtaaata caactgttcc 240
actcaacatg ccgacctaac tataattgac aacatagaag aaatgaattt tcttaggcgg 300
tataaatgca gttctgatca ctggattgga ctgaagatgg cagtcgag 348

```

<210> 431

<211> 359

<212> DNA

<213> Homo sapiens

<400> 431

```

gaattcggcc aaagaggcct aatttttttt atttagtttt ccttgttggg attattggaa 60
gttgttttgc aacctgggct tttatacaga agaatacgaa tcacagggtgt gtgagcatct 120
acttaattaa tttgcttaca gccgatttcc tgcttactct ggcattacca gtgaaaattg 180
ttgttgactt ggggtgtggc ccttgggaagc tgaagatatt ccactgcca gtaacagcct 240
gcctcatcta tatcaatatg tatttatcaa ttatcttctt agcatttgtc agcattgacc 300
gctgtcttca gctgacacac agctgcaaga tctaccgaat acaagaaccc ggagtcgag 359

```

<210> 432

<211> 922

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (787)

<220>
<221> unsure
<222> (803)

<220>
<221> unsure
<222> (817)

<220>
<221> unsure
<222> (853)

<400> 432
gaattcggcc aaagaggcct aaattggagg catgatgaag actctgctgc tgtttgtggg 60
gctgctgctg acctgggaga gtgggcaggt cctggggggac cagacggtct cagacaatga 120
gctccaggaa atgtccaatc aggggaagtaa gtacgtcaat aaggaaattc aaaatgctgt 180
caacgggggtg aaacagataa agactctcat agaaaaaaca aacgaagagc gcaagacact 240
gctcagcaac ctagaagaag ccaagaagaa gaaagaggat gccctaaatg agaccaggga 300
atcagagaca aagctgaagg agtcccagc agtgtgcaat gagaccatga tggccctctg 360
ggaagagtgt aagccctgcc tgaaacagac ctgcatgaag ttctacgcac gcgtctgcag 420
aagtggctca ggcctggttg gccgccagct tgaggagtct ctgaaccaga gctcgccctt 480
ctacttcttg atgaatggtg accgcatcga ctccctgctg gagaacgacc ggcagcagac 540
gcacatgctg gatgtcatgc aggaccactt cagccgcgcg tccagcatca tagacgagct 600
cttccaggac aggtttctca cccgggagcc ccaggatacc taccactacc tgcccttcag 660
cctgccccac cggaggcctc acttcttctt tcccaagtc cgcctcgtcc gcagcttgat 720
gcccttctct ccgtacgagc ccttgaactt ccacgccatg ttccagccct tccttgagat 780
gatacangag gctcagcagg centggacat ccacttncac agcccggcct tccagcacc 840
gccaacagaa ttnatacgag aaggcgacga tgaccggact gtgtgccggg agatccgcca 900
caactccaca ggcaacctcg ag 922

<210> 433
<211> 311
<212> DNA
<213> Homo sapiens

<400> 433
gaattcggcc aaagaggcct agtgtgagcc accacgcccg gcctagagtg ttttcttta 60
tcttttccag ttatttctac tttttctgt ccgagcttat cctttgggct ttcccccaat 120
aggactgttg agtcagttac tgacttagca cagtgaatat gcgtccta acattcttta 180
ttttttattt tattttattt ttgagacgga gtctcgctct gttgccaggc tggagtgcag 240
tggcgcgatc tcggetcacc acaacctctg actccctggt tcaagcgatt ctctgcctc 300
agcctctcga g 311

<210> 434
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (275)

<220>

<221> unsure
<222> (345)

<220>
<221> unsure
<222> (405)

<220>
<221> unsure
<222> (461)

<400> 434
gaatttcggcc ttcatggcct aggattctac caggggaaga gactgctgca ggtcctatga 60
gattaaggat aaagaatgga aggcccgact ctagagtatg agagaggctt cagttacctt 120
tgggttggga taggacaggc tacaatggcc aggatacaag atgcaatggt tgactacttc 180
atggagggga gaggaggcag gcaagcactg ctattggctg gctgtgggca gagtaaatgc 240
ttctacttgt aaacaaatat aacttcttgc cagtnaactt gtcccccca ggatctgtct 300
gcatctcctt attttctct atagtcacatc aggagaacta aaaaanattgg gataagccac 360
agagatgtca ttgataatag tagtaagagg agctaataat tattngacat ctaatctgtg 420
cctgcatgta ggtaatccta ttactcattt tagaatgaaa nagacaaatg agtaatcagg 480
ttgatttatt tactcaaagt cacggctctc gag 513

<210> 435
<211> 507
<212> DNA
<213> Homo sapiens

<400> 435
gaatttcggcc ttcatggcct acacgaatcc tatcaattct cactcaacat ttctgtctc 60
tcactctccc gttctgtcag ttcacatgaa acattctctg ccttcctcac tcccatacgg 120
ttggctttca ctgtctgttt ctgccttctt cactctcaca cagtcagctc tcactcaaca 180
tttctgcct cccgccctcc catattctgt cacttctcac tcagtattcc cggccgtcct 240
gaccttgagt gttcccggt catgtcagtt cccaatgaac acttcctggc ctccattctc 300
actacgcagc tcctcttctt cgcacaaatc ctgttgcttc tcattcaaca ctctctgcct 360
tcctcacttt ccttgtgtta gttctcagga acatttccag ttcttttcca tcaatcctgt 420
tttgtctccc aatcttctct ttctgcctg tcaaatccta aggatgacct tcctggaaca 480
atgacagtgt ttaccaccc actcgag 507

<210> 436
<211> 513
<212> DNA
<213> Homo sapiens

<400> 436
gaatttcggcc aaagaggcct actttaaatc aagcagattt ggccaggcac ggtagctcat 60
gcctgtaatc ccagcacttt gggaggctga gctgggtaga tcacctgagg tcaggaggtc 120
gagaccagcc tgaccaacat ggagaaaccc cgtctgtact aaaaatacaa aattaacagg 180
gcgtgggtgc atgtgctgt aatcccagct acttgggagg ctgaggcggg agaategctt 240
gaacccggga ggcgaagttt gcagtgaacc gatatcgtgc cattgcactc cagcctgggc 300
aacaagagtg aaactcagtc ctcaataaat aaataaataa ataaagcaaa ttctcatgaa 360
gcaaatggta ataactttaa ttattggaa gggccacaag aaagggggaa aagaacaact 420
aaaaaaaaac ttttctacc aacattaact tgcctaaca atcaacttat ttttgcttta 480
atggttcttc ctcttctcaa atggtggctc gag 513

<210> 437
<211> 460
<212> DNA
<213> Homo sapiens

<400> 437

```

gaattcggcc ttcattggcct acaccagtga gtcattcaggg tccccagggc tcttggactt 60
cccagtaact cctctaaact acttcccttt cacttccccg accatctaga tataacatgt 120
cgtcttttct ccagcagctt gaactttctt cctagccctt cacttaacct ttgccacttc 180
ccttacaacc cactctctct ctgtcacttt ttcaaatga tcttcttcca cagaagcctg 240
gagacactga agttgtccct ggccaagtgg acacagggac tatggccccc atgatcatgt 300
cttctccttc ttccctccct gcagtaataa ctgagccagc agggccagat ttggggaccc 360
cattcaccag ccgcctaccc ccagaacttc aggtcctaaa ggacgaacag gcccatcggt 420
tggcccccaa gggtaatcag tctcgacact tgagctcgag 460

```

<210> 438

<211> 402

<212> DNA

<213> Homo sapiens

<400> 438

```

gaattcggcc ttcattggcct agttacaaaa tggaaagcag aggtcattcc atcattcatg 60
gtggccatca gacaacaaca cagcagttgc ttaggagaag catgggtctt ctctgtacgc 120
acaactgaga gaaatttccc ttaaagtggc cactgagtta gatgatacaa tgaatctaata 180
ggctacacat aatcatgaaa atcatggggc cctttattgt aatgtttctc atgcgggcta 240
acatgcgtag ttctagggaa aatatgatgc tgtccaaaca tacagctatt tggtttggct 300
tatctaaaga taaaatacat agtatccaga gaaatagatg aactgtatgt cctccatata 360
gtctcccata aatattattt ctttttgcag ctgaccctcg ag 402

```

<210> 439

<211> 374

<212> DNA

<213> Homo sapiens

<400> 439

```

gaattcggcc ttcattggcct aggaagagga taaaatggaa gatcaaaaca ttatccaggc 60
tccacagaaa gaagtaggaa agggctgcga tcctgatgcc caccacaaga gcacagggtgt 120
cttccaggat gaagagctgc ttttcagcca caagctccaa aaggacaatg acccagatgt 180
tgaccttttt gctggcacca aaaaaaccaa gctgttagag ccaagtgttg ggagcctgtt 240
tggggatgat gaagatgatg atcttttcag ctctgccaaag tccagcctt tgggtacaaga 300
gaaaaagaga gtagtgaaaa aagaccactc tgttaactct ttcaaaaacc agaaacatcc 360
tgaatccact cgag 374

```

<210> 440

<211> 281

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (48)

<400> 440

```

gaattcggcc ttcattggcct aggtgtggaa agaaaacaaa aaaaaacnag aaatctcttg 60
taaaatatte caggtcaaag ttgtctcttc tccaaacctt gcagaagcac ctttcttctc 120
ttcagcgcac tgttttggga ctgtttatgc agcagatgta agtagacaac atggactcca 180
tgtgacatgc ctctaatagt aaagataaag tattactgag gttaaaaata aaaattgagt 240
agtattaatt taaagtgcac catcaggaca acaaactcga g 281

```

<210> 441

<211> 306

<212> DNA

<213> Homo sapiens

<400> 441

```

gaattcggcc ttcattggcct aagagttgtg tggttctctc cattgggttc taggctgttt 60

```

```

gttgttttga tttgtattga taggagacct acagtggcca cagctgattc catggaattt 120
tttttagcatc tgtattcaaa atattctttt tagactgtga gaataaaacc aaaacaaaaa 180
actctagctt tgaagatac taaattgtag atattataga gtaggttttt gttttgtttt 240
gtttttttga gacaaagtct agctagcttt gttgcctagg ctggagtgtg atgacaccat 300
ctcgag 306

```

<210> 442

<211> 273

<212> DNA

<213> Homo sapiens

<400> 442

```

gaattcggcc ttcatggcct agaaataata aaaagtactg aacaggaagg gcttctggag 60
acttctccag agattgacac caagcatttc attagggccc actttgtgac tattctgtta 120
gtcacaaatc taccaaatta tcccatagtt taaccatta ctcttaaat atttatgtgt 180
ataggaatta cctggctata ttgttaaagt gcagttttct gtaggtcttc ccctctctcc 240
tcccctctac tgggtctccc cccccaactc gag 273

```

<210> 443

<211> 334

<212> DNA

<213> Homo sapiens

<400> 443

```

gaattcggcc ttcatggcct acattagtgt agatttctgc aggaacatct atccagggtga 60
gaggtcgaat aagtgcagga aaaggcacat aagcccaata agaataattt tgtgtagcag 120
gtaaatcagt gtgagaggaa actggtgaga cagaaagtat aaggaggaga ataattaaat 180
aaaaccaggt gtaagcgaga ttgagtgtcg aaggaggaag agaagaacag agggatgtta 240
ttgtcaggct aatagaaatc gctgtcgctt taatccaagc ctacgttttc acacttctag 300
taagcctcta cctgcacgac aacacagact cgag 334

```

<210> 444

<211> 300

<212> DNA

<213> Homo sapiens

<400> 444

```

gaattcggcc ttcatggcct agcaatatac aattttaaaa atacacatac atacatacat 60
atgtatacat ttccagtttt aagattttgc gagggcttta taagaaaaca aaaattccct 120
caggctatag aattatgttg tcatatatca gaaaagtact gatgtatcca tttatatcca 180
atgcgcacca caccggcaca ttgtgattta attcaccgct tgaatctata tttctaacca 240
cagtgaattc agtaaaaata ccgtataatg aacatttcag cttcttctta cttactcgag 300

```

<210> 445

<211> 309

<212> DNA

<213> Homo sapiens

<400> 445

```

gaattcggcc ttcatggcct agtttgacca tttgtagtat acacagtga acttgattct 60
ctgttgcata aaacactata tttttttgga aatgttactg tccaaaagcc tcttccctcc 120
ctttcccttt cctatgtact tcttcatac ttgctttact gatcagccag gcaatagcca 180
tccaagagct agagcatgaa acagggccct tccaagtag gctctgggtg tccaaagcca 240
gcgtgtgccc tctggtttag tgagtgtaat agagtccctg gcacctttct ttgcaaatga 300
ggactcgag 309

```

<210> 446

<211> 177

<212> DNA

<213> Homo sapiens

<400> 446
gaattcggcc ttcattggcct aattgaattc tagacctgcc tggggetctg tctttcattg 60
tgggagagag atgggggagt aatttttgcg tctctggaca gagccccagg gccgggaaag 120
ggcacacaat ggggttcttg atgctttctc ccttggtctaa ccagaagatc actcgag 177

<210> 447
<211> 325
<212> DNA
<213> Homo sapiens

<400> 447
gaattcggcc ttcattggcct aattgtatcg taacctttaa accaatctcc agctgtatgg 60
gagatgggtac ttttactatc cccattttat aaatgaggaa attgaggtat agagcagtaa 120
aataattttc ccggttaagc aggttaagtgc tacaactgtg attgaccttt gaacctgacc 180
ccagagcact gatgtaatct gtctgtaccc aaaatgggtt cagtttatct ttattcaggc 240
gcagttcaaa gaatcttate ctttgctttt taactactct attctccctg gtgactagga 300
tatcttatac ccccttgagc tcgag 325

<210> 448
<211> 299
<212> DNA
<213> Homo sapiens

<400> 448
gaattcggcc ttcattggcct aaattttaat ggtgtatata ttcttcaacc tgaagttatt 60
tcagcatcag ctgatggaag taaaataaca gctcaagact cattgggtgtt acctattttt 120
cagatgtttc aagatagtggt ttttcagaaa aactgggtctt ggaactcatt tttcaagatt 180
catctcaag tagtaaatcc tgtgcaacag ccaggacaca gattgcttat tctctggaga 240
atactgtaca aaaaaacttt atggtatcaa gcacaattaa atcgaagagt tcctgaagc 299

<210> 449
<211> 326
<212> DNA
<213> Homo sapiens

<400> 449
ctcgagactc tgggagttca acaccaacct agcaacatga caaaaccccg cctctacaaa 60
cataaataaa aaacaaaaat cattaacctt gagtgagtca agttcatctg cagactgaaa 120
aaaataaagt gtaacagaat tttgatttaa aaaacgcttt caaaaaagca tttcaaatg 180
ctctaagtat gtttcaaaaa tacacttaaa aatatgtttc caacacactg aagggattta 240
actaagatcc acaattacag ttacgatata aactgtaagc taaaaggcag caacttaagc 300
tgagacagtt actaacatcc ctcgag 326

<210> 450
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (164)

<220>
<221> unsure
<222> (301)

<220>
<221> unsure
<222> (380)

<400> 450

```

gaattcggcc ttcatggcct aggggaagct tgttaaatat gttagatatt taaaacactt 60
aatattatga agtagaattc cagattataa taagttattt agccaaaatg atgactcaaa 120
aatttttaaa aaggcaaaaa ccttttttca ttaagagaga agantcagct ttccaatcta 180
ctcctgtctt aactgcctgt tttttggaag tttattctca aggtgcaaac aaaagtcttt 240
aattattctt tcctattaca tgaacatctt attcaaggga gagaaagcca aaattcacc 300
ntgatttagt ctacggttta catcaacccc aacttttaaa tgaaacctta tagatgattc 360
tctctgatct cagccagttt tctcgag 387

```

<210> 451

<211> 318

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (141)

<400> 451

```

gaattcggcc ttcatgccta caggaatgca ttcttgacat ttccgaacac acattaagt 60
aaaatgactt agaagaacta agggtagatc actataaatg taacatacag gcattctgtac 120
atgtttctga tttagtaca nataatagt gatctcaacc aaaacagaag tcagatactg 180
tgctttttcc agcaaaggat ctcaaggaaa aggaccttca ttcaatattt actcatgatt 240
ctgggtctgat aacaataaac agttcacaa agcacctaac tgttcaggca aaggctccat 300
tccatactcc tcctcgag 318

```

<210> 452

<211> 467

<212> DNA

<213> Homo sapiens

<400> 452

```

gaattcggcc ttcatggcct aagaaactac agtaaactgt catccatgat cccactgcag 60
agaaaaacat tgccgacatt tttgagcatt tcctaccagt tcccccttc caaagttgaa 120
ttatttataa accgtcactc tgaggaatgt tgattgtgtt cgtaagaaaa ctcatggctt 180
aggagccaga gtaagcagga ctactatgtt aaacagcagg tttagactaat atattttctt 240
aattgcatca aacactagtg ttatattaag tcaaaagtct tcacagatta tttttctcaa 300
gaggatttca gtgcttcagt gtgcacatta atatcagttc cacttgcttt tcagtgatgt 360
catagtaatg agacgttata agtgaatata aatctacctc taaagagatt attgatttgt 420
tttattttac ttaagatttg aattccaaat ccagtaacac gctcgag 467

```

<210> 453

<211> 322

<212> DNA

<213> Homo sapiens

<400> 453

```

gaattcggcc ttcatggcct agcttcagtt ttcattcacc ctcctgtctc gcaactgtcag 60
ccaagagctt actcagcaga caccacatac tgcagcagtt cctagtgaga aaatctgtgc 120
cactagaaaa tgettccact ccatttctc acctgggcag ttctctgttt aaaattgtgg 180
gctgatttgg tcttcctctc ctcctccac tgttactgcc ctgcagccct tgttcagggtg 240
tacagacctt tattctggcc tetagtgtcc ttgtctgtca tgacacaccc ttccgccc 300
atacctctga ccccaactcg ag 322

```

<210> 454

<211> 263

<212> DNA

<213> Homo sapiens

<400> 454

```

gaattcggcc ttcattggcct aagggattta aagagttttt cttgggtggt tgtcaaactt 60
ttattccctg tctgtgtgca gaggggattc aacttcaatt tttctgcagt ggctctgggt 120
ccagccctt acttaagat ctggaaagca tgaagactgg gcttttttc ctatgtctct 180
tggaactgc agctgcaatc ccgacaaatg caagattatt atctgatcat tccaaaccaa 240
ctgctgaaac ggcagcactc gag                                     263

```

<210> 455

<211> 536

<212> DNA

<213> Homo sapiens

<400> 455

```

gaattcggcc ttcattggcct aggtgggtggg tgctccgcct gcactaggcg cacccttgca 60
gaggtggctg gttgctcttt gaaggtcccc ctggatggta atcctggctg ctttctgcac 120
ttgtatataa agtcctcccc aagatggcct gtggtctgcc tcttggcaac caagaagccc 180
gcagtgccat gtgacacctg aggcattggac tggagcccca aaggcagggg acacccttct 240
cctgaacctg ctttttcttt cctctatatg gctccatttg tggcaaagtt gttgactga 300
aacttgtgca tgctgggcaa ggacaagctg gctcaaagag caaccagcca cctctgcaa 360
gggtgtagcag gagccggtgt accagtcacc aattagcgtc cggacatgta catcattct 420
tccaccctaa aggtaggggc acagtgccat ctgcttttct taaggcctct gctccatcag 480
caataagggtg gcagacactc aggtgtgagg aacctggcca tcccacttc ctcgag 536

```

<210> 456

<211> 757

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (193)

<220>

<221> unsure

<222> (345)

<400> 456

```

gaattcggcc aaagaggcct aggcctgctc ctgcagcaac caggccagcc gggatgatctg 60
cacacggaga gacctggccg aggtcccagc cagcatcccg gtcaacacgc ggtacctgaa 120
cctgcaagag aacggcatcc aggtgatccg gacggacacg tacaagcacc tgcggcacct 180
ggagattctg canctgagca agaacctggg gcgcaagatc gaggtggggc ccttcaacgg 240
gtgcccagc ctcaacacgc tggagctttt tgacaaccgg ctgaccacgg tgcccacgca 300
ggccttcgag tacctgtcca agctgcgga gctctggctg cggancaacc ccatcgagag 360
catcccctcc tacgcttcca accgctgcc ctgctgagg cgectggacc tgggcgagct 420
caagcggctg gaatacatct cggaggcggc cttcgagggg ctggtcaacc tgcgctacct 480
caacctgggc atgtgcaacc tcaaggacat ccccaacctg acggccctgg tgcgcctgga 540
ggagctggag ctgctgggca accggctgga cctgatccgc ccgggctcct tccaggggtct 600
caccagcctg cgcaagctgt ggctcatgca cgcccaggta gccaccatcg agcgcaacgc 660
cttcgacgac ctcaagtcgc tggaggagct caacctgtcc cacaacaacc tgatgtcgct 720
gcccacgac ctcttcaacg cctgcaccg cctcgag                                     757

```

<210> 457

<211> 897

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (7)

<220>

<221> unsure

<222> (212)

<400> 457

```

gaattcngcc aaagaggcct aaaatgtttg gcactttgct actttattgc ttctttcttg 60
cgacagtcc agcactcgcc gagaccggcg gagaaggca gctgagcccg gagaagagcg 120
aaatatggg acccgggcta aaagcagacg tcgtccttcc cgcccgctat ttctatatc 180
aggcagtga tacatcaggg aataaattca cntcttctcc aggcgaaaag gtcttcagg 240
tgaaagtctc agcaccagag gagcaattca ctgaggttg agtccagggt ttagaccgaa 300
aagatgggtc cttcatagta agatacagga atgtatgcaa gctacaaaaa tctgaagggtg 360
gaaattaaat tccaagggca acatgtggcc aaatcccat atattttaaa agggccgggt 420
taccatgaga actgtgactg tcctctgcaa gatagtgcag cctggctacg ggagatgaac 480
tgccctgaaa ccattgctca gattcagaga gatctggcac atttccctgc tgtggatcca 540
gaaaagattg cagtagaaat ccaaaaaaga tttggacaga ggcagagcct atgtcactac 600
accttaagg ataacaagg gaagatgcca gatgtggagc tctttgttaa tttgggagac 660
tggtcttttg aaaaaagaa atccaattca aacatccatc cgatcttttc ctggtgtggc 720
tccacagatt ccaaggatat cgtgatgcct acgtacgatt tgactgattc tgttctggaa 780
accatgggcc gggttaagtct ggatatgatg tccgtgcaag ctaacacggg tctccctgg 840
gaaagcaaaa attccactgc cgtctggaga gggcgagaca gccgcaaaga tctcgag 897

```

<210> 458

<211> 520

<212> DNA

<213> Homo sapiens

<400> 458

```

gcggggatcg acaagctgcc catcgaggag acgctggagg acagcccgca gacaagggtct 60
ttactaggtg tatttgaaga agatgccaca gctatttcca actatatgaa ccagttgtat 120
caagctatgc atcggattta tgatgcacag aatgaattaa gtgcagcaac acacctgacc 180
tcaaaacttt taaaagaata tgaaaaacag cgttttccat tgggagggtga tgatgaagtt 240
tgagctcta cattgcaaca gttttcaaaa gttatagatg agcttagctc ttgtcatgca 300
gtgctttcaa ctcaacttgc tgatgccatg atgttcccca ttaccagtt taaagaaaga 360
gatctgaaag aataactaac attaaaggaa gtatttcaga ttgcaagtaa tgatcatgat 420
gctgcgatta atagatatay ccgtttatca aaaaaaagag aaaatgacaa ggtgaagtat 480
gaagtaacag aagatgtgta cacatccaga aagactcgag 520

```

<210> 459

<211> 525

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (53)

<220>

<221> unsure

<222> (57)

<400> 459

```

gaattcggcc aaagaggcct actcagggtg agctcttctg ttgctcattt gtnccetnaat 60
ttttaagggc tttttctcag tcaatagttt gtacaaactg gttagttaa cttcattacc 120
catttcatta aagttgatgg gtcgtgtgat gagatgcatt taaggccgat agtgatagat 180
gtttttttta tttcttgaa acaggccttg tctgaatgat gttcttttat ctcttgaa 240
caagctttga atgataacta caggttttaa gtgctgttac attaatacca taatgtgatg 300
tgttagaaac aaagggatat ttcaaaggta gatatttgaa aattctctag tctcaatatg 360
tatgtgtatt gaatatactc taaaaataaa tgtgcaattt gctagtagga caatgcagtg 420
actgactagc attaggtatg tttcttttat atcctagcta tgtccactt tcttctaagt 480
gcaatccttt catgttcact tgcgtgttta cccatctac tcgag 525

```

<210> 460
 <211> 617
 <212> DNA
 <213> Homo sapiens

<400> 460
 gaattcggcc aaagaggcct acagaataat ggaatataat atgtcttcat aatataacaa 60
 cactaataca ctaatagtaa gattaagtta ggcagtcttc taccaaatgt gtaatggaga 120
 ttgcctcaaa atttgtgtcca cataatccac gctcatcttg caaagcgcta ttccaggcac 180
 atcattggaa tacaggaagt agccctgcac ctgccagtga gctcgccatt cactgattgg 240
 aagagtggacc tggcatcttg gaaatcattg tgtgtcttca ggagaatgtg cagtgtcttg 300
 taacaactaa ttataatgca aattagggct acattgtaat ctgctttgtt aatgaaaatg 360
 ataaaacaga atattgacaa gctaggacac ctgtggatc tttaattgta tctccttcag 420
 aagtttgctt cttatgggtat aataaagtat ggaagaatat tgagtatatg tttactctgg 480
 gcctgggaga acttaacttt ctagagcagt ttgttgactt gtgtgcaatg gggagaggta 540
 ccatgatgac actcacagg agccactgtt cactgacact tggaagcggc cattgttaat 600
 atcacggagc actcgag 617

<210> 461
 <211> 886
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (199)

<220>
 <221> unsure
 <222> (232)

<220>
 <221> unsure
 <222> (249)

<400> 461
 gaattcggcc aaagaggcct acagcacttc tttggaaaga ggaagaatgc aaagttcagt 60
 atttcaatac tttgtatttt acttgaaatt acccttagta gcatcttttt tttcctgtct 120
 gaaagctttt gtgtggatga gaagggacat ttcatttcct cccttaacaa agtgtcattc 180
 tgagggtctc atgtgtgtnt ttggaaatag agatactggt tttgtagagt tngcctttgg 240
 gtatgtttnc tttttttctt aaatctccaa ggaagagaac tgactaaaat agtaggaaca 300
 tgaaagtatt aaatgccaat taatttgttg tagtaaagta tcttcattag cgttatactc 360
 catcatatct ggtgtaaaact gctcacagaa aacctatga aaccaaaagg ggaccattca 420
 ggtctaaaaa gcgacaggct cgagactggg tctgtcacct gggcattttc aaagaggaca 480
 ttttgaaaga ttgcatatt cagattttta aaatgcactt aacatacttc attacagatt 540
 tcttgggtag ggaggatggg ataggccagg gatgggatgg aatcagttct gcctgggaaa 600
 ctaatccgaa tcatttacct ttctgtatta acctggcct gtcctaaaaa gagaacgact 660
 gtttcatcat gagttgctct gagttttgtt aatgtttgtg ttggtggatt gacgggttaa 720
 tgaagcattt agctggaata tgaactttgg gagtttcat gttgtcctgg atttctcttt 780
 gtaaaccttt aaaccttagc ccttggttga ttgtgtttaa cccattatga gaatgttatt 840
 taaagttgta ttataattgc aacctccatt ctagacctgc ctcgag 886

<210> 462
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (146)

<400> 462

```

gaattcggcc aaagaggcct agtcaacatg aaggetctca ttgttctggg gcttgctctc 60
ctttctgtta cgggtccagg caaggtcttt gaaaggtgtg agttggccag aactctgaaa 120
agattgggaa tggatgaccc ctggtngaac cctacagtcc cctactcaca acccctacac 180
tctctaccc atgacccctg gcagaacctt acagtccctt actcacgacc cctacactct 240
cctacccatg acccctgggt gaaccctaca gtcccttact cagcaccctt acactctctt 300
acccatgacc cctggcagaa ccctacagtc ccctactcac gaccctaca gtcccttact 360
catgaccctt ggagtaacct tacagtccca ctcgag 396

```

<210> 463

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (259)

<220>

<221> unsure

<222> (386)

<400> 463

```

gaattcggcc aaagaggcct aagaaatatg actctcttgg tagagaagct tgagacacta 60
gacaaaaaca atgtccttgc cattcgccga gaaatcggtg ctctgaagac caagctgaaa 120
gagtggtgagg cctctaaaga tcaaaacacc cctgtcgtcc accctcctcc cactccaggg 180
agctgtggtc atggtggtgt ggtgaacatc agcaaaccgt ctgtggttca gctcaactgg 240
agagggtttt cttatctana tgggtgcttg ggtagggatt actctcccca gcatccaaac 300
aaaggactgt attgggtggc gccattgaat acagatggga gactgttgga gtattataga 360
ctgtacaaca cactggatga ttgtcnattg tatataaatg ctcgag 406

```

<210> 464

<211> 395

<212> DNA

<213> Hemo sapiens

<400> 464

```

gaattcggcc aaagaggcct agaacctctc cagcgccagc aactcagcca acgatttctg 60
atagattttt gggagtttga ccagagatgc aaggggtgaa ggagcgcttc ctaccgttag 120
ggaactctgg ggacagagcg ccccgcccg cctgatggcg aggcagggtg cgaccagga 180
cccaggacgg cgtcgggaac cataccatgg cccggatccc caagacccta aagttcgtcg 240
tcgtcatcgt cgcggtcctg ctgccagtc tagcttactc tgccaccact gcccggcagg 300
aggaagtcc ccagcagaca gtggccccc acgaacagag gcacagcttc aagggggagg 360
agtgtccagc aggatctcat agatcagaac tcgag 395

```

<210> 465

<211> 292

<212> DNA

<213> Homo sapiens

<400> 465

```

gaattcggcc aaagaggcct actatccatc tatctatcta tccatctatc catctatccc 60
tctcttctg caataaaata tccattgagg tcacatcatg tgatcgactt cctccctctc 120
tcaatctccc tacaagttcc gaaggaaata agtacactct gttcaaaacca ctctctcta 180
tctgagaacc gctaagggag gaggcaattt gattatggta attctagcta agacagcaat 240
tttaggggtt gggggctcag tggttctctt ttgttgtaaa acagctttctg ag 292

```

<210> 466

<211> 408

<212> DNA

<213> Homo sapiens

<400> 466

```
gaattcggcc aaagaggcct aggtacagta ggtttataaa cagaagttaa aacttatttc 60
tttacatatt catcaatgtc tgaagaagtt acttatgcag atcttcaatt ccagaactcc 120
agtgagatgg aaaaaatccc agaaattggc aaatttgggg aaaaagcacc tccagctccc 180
tctcatgtat ggcgtccagc agccttgttt ctgactcttc tgtgccttct gttgctcatt 240
ggattgggag tcttggcaag catgtttcac gtaactttga agatagaaat gaaaaaatg 300
aacaactac aaacatcag tgaagagctc cagagaaata tttctctaca actgatgagt 360
aacatgaata tctccaacaa gatcaggaaac ctctccagca cactcgag 408
```

<210> 467

<211> 487

<212> DNA

<213> Homo sapiens

<400> 467

```
gaattcggcc aaagaggcct aaaaagagaa aaaagaaatt tagaagaata acaagttatt 60
ccaaatgaag gcgtaagaaa gggaataata acaataataa gaggagttgt tcatgaggaa 120
aaaccaaaagc ttgaaaattc acaaaagcca gtgaagctca ttcttgaaaa catgaatcac 180
actcatgaaat tctaactaca atgaaaaaga gaaagaaaga gcaggcatgc atttccatat 240
gggagtggagc cagcagacag ccctacagat cgtacacacg ttttccaaaa ctaacaatgg 300
aacaggcggc aaacctatgc caatatacta gaaattgcag attaaataga tgaaatattc 360
taaactggag tttacataat gaacataaga gtaatcagag aatctgactc attttagatg 420
tgtgtgtgtg tgtatatata tgtgtgtgtg tgtgaaaaac attgactata ataaaaataa 480
tctcgag 487
```

<210> 468

<211> 600

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (503)

<400> 468

```
gaattcggcc aaagaggcct aatgatgcaa tagcttgaaa attagttata gtatatacaga 60
ttgatgcact tctgtgaaaa aggtcacact ctatgtctat ttcaaatgc agaccctgca 120
ttttggtaat gtttttaaat cacagagaga cagtttagagg atgaaaactg gaaactgaag 180
aataatttta agaatgctaa gctctctgct ttatttatgt aagttacatg acataaaatg 240
tcagggaagt gttttgacta ttactgtaca aaataggaaag aaccaactca gtgaacaaat 300
ttgccttctg tttgttgagt cagttatttc acaaaaaaaa ctattgctta ttttcagtag 360
acatttttag ttttccatga atactgaaaa attaaagact ttaagttctg atcatgaaaa 420
acaaacaaat ttatttcacc aaaaatattt tcaacttagt tattattaga taaacatata 480
acttcatata ttaaaatagt agnaaagcaa ggttaatagt atattttatt acattaagca 540
aattaatgta tatatgccat aggcacatca atttagaatg tttaattagc actactcgag 600
```

<210> 469

<211> 887

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (367)

<400> 469

```
gaattcggcc aaagaggcct atgctgagtg gaaggaaaca gccagggtggc tgaagtttga 60
agaagatgtt gaagatgggg gagaacgctg gagcaagcct tatgtggcaa ccttttcatt 120
```

```

gcacagcctg tttgagctaa ggagctgcct tattaatgga acagtcctcc tggatatgca 180
tgcaaatagc atagaagaaa tttcagacct gatcctggat cagcaagaac tgtccagtga 240
cctgaatgac agcatgaggg ttaaagtgcg ggaagccctt ctcaaaaagc atcatcatca 300
gaatgaaaaa aagagaaaac acctcattcc cattgttcgc tcctttgctg aggttggcaa 360
gaagcantct gatcctcatt tgatggataa acatgggtcaa accgtgtctc ctcagtctgt 420
tccaactaca aatcttgaag taaaaaatgg agtgaattgt gaacatagtc ctgtggattt 480
aagcaaggta gaccttcatt tcatgaaaaa aattcctact ggggccgagg cctccaatgt 540
cctggttgga gaggtggata ttttggaccg tcccattgtt gcctttgtga ggtgtctcc 600
agctgttctt ctctcaggcc taacagaagt gccaatccca acaagatttt tgtttatctt 660
attgggtcca gtagggaaaag gtcagcagta ccatgagatt gccagatcca tggccaccat 720
catgacagat gagatttttc atgacgtagc atataaggca aaagagcgag atgatctcct 780
ggcggggatt gatgagttcc tagaccaggt gacggtgctc cctccaggag agtgggatcc 840
ctccattaga attgagccac ccaaaaatgt cccttcccag gctcgag 887

```

<210> 470

<211> 488

<212> DNA

<213> Homo sapiens

<400> 470

```

gaattcggcc aaagaggcct acatttccgc acgctattgg gtgccatatt ctgtgtctga 60
ggttacaggc atgccagaac cctcccactg ccaagctggg agatcatttg ttatttctgt 120
agccataggc ttgccaaaac ctggggagct tgattctgaa aggagccatc atgccagagg 180
gcagcaagct ggcgagctgt ggggtggtct caacactcga tatccaagcc tttcagcctg 240
agtgtaacca gagcccctcg gagagaaagt ggccctgagc tgctcagct gctgtaaaat 300
tcctctaatg gcctagtcta agtccctctc actcaggcca ccgcatttc aatggaaaat 360
gagttgggtc caaataggat gaaccaaact tctgtctgag caaaaaagtt ggcccagggc 420
tcaagagcct taaatggacc atgaataatg ttttacagcc tcggcactgg ggtgaactca 480
accccata 488

```

<210> 471

<211> 471

<212> DNA

<213> Homo sapiens

<400> 471

```

gaattcggcc aaagaggcct ataggcctct ttgggtgggtc tctgaaaaaa aaaaaagag 60
taagtgggat ctgtgtgagg agctggtgtg cagtgttctt ggagtaggac tgtcccaga 120
tggagaaaag ccggccaggc tgtgccagcc tctgcagcct gttttcatct ctacagctgt 180
ttcgtctcgc cagcagagcc cagggatggt accaagtaca ctgtgagagc tgatactgga 240
gttggcagat gccctggggc aggcaccatg cagaacacac agaagtgggg ttagtgaana 300
ggtcccttcg aattccattt cgtttccctt aaaaaacaaa aacaaaagcc catactttgc 360
aaagagacag gacgagaaat aagaagttaa agaatttaa atgtctccct ttttctcaga 420
gccaatgtga aaaaagagcc cagcgtcgat tgaatctaga cccaactcga g 471

```

<210> 472

<211> 746

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (177)

<220>

<221> unsure

<222> (242)

<400> 472

```

gaattcgcgg ccgcgtcgac gttaatcgaa agagattatc aggggtgtgtc tgactaaacc 60

```

```

agtgagccca tgaaaaggct ctgcccttcc tgagggtcagg gatgttcagg atgagggatt 120
ctgtgtctggc ttggaagacg gaggggctat atgggtgagga cctgagggag accctangag 180
cagacagcat tctctggcca gcaacagcca gtaaggaaat aaggacggtg gtcctacaac 240
cnacaaggaa ttgaattctg ccagcaacag aaaatgctgg gaggaggatc ccaagcttca 300
gatgagaacc agccctggct aacgggctga ttccagcctt gtgtgactct ggacacagag 360
cccggttggg tccggcctga cttctgagct agggacctgt gagttataaa catgtgctat 420
tctgagggct ccatttgtgg ttttttgta gacagcagca gaaaactact gcctcctccc 480
tctggctgtg gagatttgc cactttttag gtggcctaag cttaggaagt ggcctaagct 540
tagggagtgg cctaagcttc cactttgctt ctattccatt tctctcctt tcccagaggt 600
tttctccttc tcttttctcc catttcttgt acaataaaca ataccactca tttcttctcc 660
tggtattatt ccatcagcat acaaacctgc cgcattctac aaatatcttt ccctagtcac 720
tcctcctctc caagggtcca ctcgag 746

```

<210> 473

<211> 370

<212> DNA

<213> Homo sapiens

<400> 473

```

gaattcggcc ttcatgccta caaaaattag ctgggtgtgg tggcatgggc ctgtagtccc 60
agctacttgg gaggtgagg caggagaacc gcttgaaccc aggaggtgga ggtttcaggg 120
agctgagatt atgtcactgc actccagcct gagcaacaga gtaagactct gtttaaaaaa 180
aaaaaaaaat taagtgtgct gtcttagtat cttgttatta tgtcctaaca gccatacaca 240
acttattaga aggatatcct gtagtgcttg tggtgagtct ctaggcttaa tctaattggct 300
tcttttagctg atgatcactt cgtgatggag tgctgtgtgt tgaattactc ctctccccta 360
cttctcagag 370

```

<210> 474

<211> 607

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (136)

<220>

<221> unsure

<222> (359)

<400> 474

```

gaattcgcgg ccgcgtcgac tctgaacatg gcggcggtgg tagctgctac ggcgctgaag 60
ggccgggggg cgagaaatgc ccgcgtcctc cggggggattc tcgcaggagc cacagctaac 120
aaggcttctc ataacnggac ccggggcctg caaagccaca gtcctccaga gggcaaggag 180
gaacctgaac ccctatcccc ggagctggaa tacattccca gaaagagggg caagaacccc 240
atgaaagctg tgggactggc ctgggccatc ggcttccctt gtggtatcct cctcttcac 300
ctcaccaagc gggaagtggg caaggaccgt gtgaagcaga tgaaggctcg gcagaacang 360
cggttggtcca acacggggcg gtatgagagc cagaggttca gggcttcctc ccagagtgcc 420
ccgtcccttg atgttgggtc tgggggtgcag acctgaggag cgctgcgacc ctctaggct 480
attgactgtt aagtcctcag gtttggtcca gattccagtt cgtgcctctg aggtccacca 540
gagggcgcat gaagcccagc ctgttgccaa accctaccct gccccacacc aaggagccga 600
tctcgag 607

```

<210> 475

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (7)

<220>

<221> unsure

<222> (243)

<400> 475

```

gaattcncgg ccgcgctcgac ggccccagca aggcccatga gtgactgccc tgacgtattc 60
actgtgcctc tggggcactt cttcccctgt agatgtgggc ttgttgccct cagccggctt 120
ccctgaggga ggagaacact ggattattgg aaatgtttta atcactcttg ccattaccta 180
catctattag catagatgat gaaaagctgt tactggtgat tatagatgag tatttccagg 240
acnacattct aaaagtacaa ttatttctta ttggggagat tacaggtagt ttggcaaagc 300
attgaagtac aaaggtacat tttcaattaa aaagcacact tctacaaaag atttggtttt 360
taaattatgg ttacacattt cagtaactca tagctgctgt gcaaattggg agaccttata 420
agaaggcact tgtttctaag ccagagaaga aactttaatt gcctcctatc agattgttga 480
gggtgggtgtg atagtcttca ggtgcagtgc gttcattcac taacgctcac tgtcagtgcc 540
catgttttgc agctgcctcc atgtgactag tgagctgctg gtgaaagtcg tgtgaaatcc 600
tgtacactgt gtatagaaca atgtaatttt atgttaattg ttattacttt aaaacatatc 660
taccatctga ttggctggta actcgag                                     687

```

<210> 476

<211> 545

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (126)

<400> 476

```

gaattcgcgg ccgcgctcgac cggagggtgc agtgagccga gatcacacca ctgcactcca 60
gcttggggcga cagagtgaga ctctgtctca aaaaggaaat atcagagttg agaatagaag 120
gatgtngcat ggaaagtgga acagatgatg tttttgttgt cacaataaag gggagctaaa 180
ccttggcctg agcccttgtg agagggagta cagagctgaa ttgtgtggat aacttacatt 240
ttaggcagag ggttgagaaa taccatttta gctacataga gtaagttaa agttcagagg 300
tttttccgtc tctggcgtcc aagggtgaat gaattccttg gactgtactg agacctgcag 360
aagaacagac aggagccagt tgttcagaat catgaaaaat caagaaggct gtgattgaat 420
ggagtgtataa cccacatttc ccttggaaat caggtccaag ataaatgtgc tgcaacaaag 480
caaaatgtgt ggcaattttc atactgaagt tgaaccctgt tggggagggg agtggggagc 540
tcgag                                     545

```

<210> 477

<211> 773

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (219)

<400> 477

```

gaattcggcc aaagaggcct acgagagccg aaggaggctg tgggaggtgt tggcggcggc 60
ggcgcggggc cctgaggagg agggaggaga gcgatgaga tcgtggggct caccagcgtc 120
ccccatggct tctgagtagc gtgggagtgg agtcagcacc aagccaggct ccccgcgctt 180
gccttgccct cactgctcc tgctctctgc cagaggcana tgggccgcag ggcaccatgg 240
ggcccgacga gtgacagcac gagaactgtg cgagaacgac gacctggcca ccagcctcgt 300
cctggacccc tacctcggtt tccgcaccca taagatgaac gtcaggctta tcgctacctc 360
cgtgccttcc tgccggaaag tggttttacc atcctgccct gcacgcgcta ctccatggag 420
accaacgggg ccaagatcgt gtccactcgt gcttggaaaa agaattgaga gctggagctg 480
ctggtgggct gcattgcaga gctgcgggag gcagatgagg ggctgctgag ggccggtgag 540

```

```

aatgacttca gcatcatgta ctcaacccgc aagcggagtg ctcagctgtg gctgggccc 600
gccgccttca tcaacatga ctgcaaaccc aactgcaagt ttgtgcctgc agatgggaac 660
gcagcctgcg tgaagggtgt ccgggacatt gagcctgggg acgaggtgac atgcttctac 720
ggcgaggggt ttttcggcga gaagaatgag cactgtgaat ggcacacctc gag 773

```

<210> 478

<211> 517

<212> DNA

<213> Homo sapiens

<400> 478

```

gaattcgcgg ccgctgcgac gagagttctt gctcttgctg taccagatac tctttttctt 60
ctactcctct tcagagagtc ctgaactatg cttttataac caaccacagt gtttctaact 120
gtgaattatg attgcatatg cctctaccac ggtgcttacc aactacatc ataaatattc 180
atttgcactt tgtctccatt ctaggtagca aactctttca acataagaat tttatctaag 240
cactcttcac tttatgcctt tgccagtcaa cactatcctg atgttaacat ccatatgatg 300
taatcaatat tcagtcaaca aatatctgga gtagatagcc attgtacccc aaagtaaatc 360
atatgagccc tacttttaag aaatccaagc tgtcactgga ataaaaatga tgtttcatca 420
tccacaaagt aattattgca taaagaagcc ccatactctg gcatccactt tacaaaaata 480
aaaaatcagg gaaaggatga atcgatcatgg actcgag 517

```

<210> 479

<211> 202

<212> DNA

<213> Homo sapiens

<400> 479

```

gaattcgcgg ccgctgcgac atcattttta tgaaatgcct ttgtactact cctgtgtagt 60
catcatgtcc tccttccagc ctccaccacc aatcaaccaa ccaactttta tcctggcagc 120
taccagttgt ctgaatttta tcactttcgc tataatttta tctttctcag aatgtcataa 180
tacagtagcc cccgtactcg ag 202

```

<210> 480

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (19)

<220>

<221> unsure

<222> (98)

<220>

<221> unsure

<222> (208)

<400> 480

```

gaattcggcc aaagatgcnt aatgctctca taccagtga aacagactgg tcaacttagt 60
ttttttgttt tgtgttttct ttttcttttt tttttttnac acgttttgtt acacgagaac 120
gatgggtagg ccccatctgg ggtcttgggg agaaaagcaa gttccccgat ttattgaatg 180
ttcctgtttt gcattcccca tgctcgangc aggtccgctg attgaattct agcactcctc 240
gag 243

```

<210> 481

<211> 900

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (692)

<220>

<221> unsure

<222> (727)

<220>

<221> unsure

<222> (865)

<400> 481

```

gaattcgcgg ccgcgtcgac cgattgaatt ctagaccagc cttgctccca gctcaccac 60
aagatgtgga cagctcttgt gctcatttgg attttctcct tgtccttata tgaaagccat 120
gcggcatcca acgatccacg caactttgtc cctaacaaaa tgtggaaggg attagtcaag 180
aggaatgcat ctgtggaaac agttgataat aaaacgtctg aggatgtaac catggcagca 240
gcttctcttg tcacattgac caaagggact tcggcagccc acctcaactc tatggaagtc 300
acaacagagg acacaagcag gacagatgtg agtgaaccag caacttcagg agttgcagct 360
gatggtgtga cctccattgc tcccacggct gtggcctcca gtacgactgc ggccctccatt 420
acgactgcgg cctccagtat gactgtggcc tccagtgtct ccacgactgc agcctccagt 480
acaactgtgg cctccattgc tcccacgact gcagcctcca gtatgactgc ggccctccagc 540
actcccatga cacttgact ccccgcgccc acgtccactt ccacagggcg gaccccgctc 600
actaccgcca ctgggcatcc atctctcagc acagccctcg cacaagtgcc aaagagcagc 660
gcgttgccaa gaacagcaac cctggccaca tnggccacac gtgtcagac tgtagcgacc 720
acagcanaca caagcagccc catgagcact cgtccaagtc cttccaagca catgcccagt 780
gacaccgcgg caagccctgt accccctatg cgtccccaag cacaaggctc cattagccag 840
gtgtcagtgg accagcctgt ggttnacaca acaataaat ccacacccat gaccctcgag 900

```

<210> 482

<211> 354

<212> DNA

<213> Homo sapiens

<400> 482

```

gaattcggcc aaagaggcct atcaaaacta accctttcct ctgacttctt agtcaaagaa 60
catacacttt agctaatacc ccaagacaga agttcttttg tgctgagagt caacgagagt 120
cacattctcc ttgaaaaggg aagggaagct ctatacctgg ataactgcgc agatccatgg 180
ccccatagca caaaattcgg gcaactgaga acccagctgg cccccagctg gtaattcttc 240
aacattctgg tgtgtcctaa catttgccaa taggctggaa ggatttagag aacaggaagt 300
aagctactgg gagataaggc tgcagctgtg aattatagac aggggaaggct cgag 354

```

<210> 483

<211> 631

<212> DNA

<213> Homo sapiens

<400> 483

```

gaattcggcc aaaggcctac tctgtgaact tcactactgg aaagcaacaa aggcagtcgg 60
cataaaaaatg ggttctctca gcacagctaa cgttgaattt tgccttgatg tgttcaaaga 120
gctgaacagt aacaacatag gagataacat cttcttttct tcgctgagtc tgctttatgc 180
tctaagcatg gtcctccttg gtgccagggg agagactgca gagcaattgg agaagggtgct 240
tcatttttagt catactgtag actcattaaa accagggttc aaggactcac ctaagtgcag 300
ccaagctgga agaattcatt ccgagtttgg tgtcgaattc tctcaaatca accagccaga 360
ctctaactgt accctcagca ttgccaacag gctctacggg acaaagacga tggcatttca 420
tcagcaatat ttaagctgtt ctgagaaatg gtatcaagcc aggttgcaaa ctgtggattt 480
tgacagctct acagaagaaa cgaggaaaat gattaatgct tgggttgaaa ataaaactaa 540
tggaaaagtc gcaaatctct ttggaaaagag cacaattgac ccttcatctg taatggctct 600
ggtgaatacc atatatttca aaggactcga g 631

```

<210> 484
 <211> 487
 <212> DNA
 <213> Homo sapiens

<400> 484
 gaattcggcc aaagaggcct aagggcattc cagaaagatg aggatatttg ctgtctttat 60
 attcatgacc tactggcatt tgctgaacgc atttactgtc acggttccca aggacctata 120
 tgtggtagag tatggtagca atatgacaat tgaatgcaaa ttcccagtag aaaaacaatt 180
 agacctggct gcactaattg tctattggga aatggaggat aagaacatta ttcaatttgt 240
 gcatggagag gaagacctga aggttcagca tagtagctac agacagaggg cccggctgtt 300
 gaaggaccag ctctccctgg gaaatgtctc acttcagatc acagatgtga aattgcagga 360
 tgcagggtg taccgctgca tgatcagcta tgggtgtgcc gactacaagc gaattactgt 420
 gaaagtcaat gcccataca acaaaatcaa ccaaagaatt ttggttgtgg atccagtcac 480
 actcgag 487

<210> 485
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 485
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 gccaccagta actacttctg ggggtgccatt caagagattc cttaaagcaaa ggagttcatg 180
 gctaatttcc ataagaccct ctttttgggg aagggaaaaa ctctgactaa tgaagcatrc 240
 acgaagaagg tagaacttga caactgcctc tctgtgtctc cttacctcag aggccagagc 300
 aagctcattt tcaaaccaga tctcactttg gaagaggtag aggcagaaaa tcccaaagt 360
 tccagaggcc ggtatcgccc tcaggaatgt aaagctttac agaggggtcgc catcctcgtt 420
 ccccaccgga acagagagaa acacctgatg tacctgctgg aacatctgca tcccttcctg 480
 cagaggcagc agctggatta tggcatctac gtcatccacc aggctgaagg taaaaagttt 540
 aatcgaacca aactcgag 558

<210> 486
 <211> 971
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (11)

<220>
 <221> unsure
 <222> (83)

<220>
 <221> unsure
 <222> (364)

<220>
 <221> unsure
 <222> (387)

<220>
 <221> unsure
 <222> (445)

<220>
 <221> unsure

<222> (546)

<400> 486

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gaattcggcc naagaggcct actacttgcc cctcgttcc ttccccagcc ctttagagaa 60
gggaccatga tttggaaacg cancgccgtt ctccgcttct acagtgtctg cgggctcctg 120
ctacaaggca gccaaaggca gtttccacta acacagaatg taaccgttgt tgaagggtga 180
actgcaattt tgacctgcag ggttgatcaa aatgataaca cctccctcca gtgggtcaaat 240
ccagctcaac agactctgta ctttgacgac aagaaagctt taagggacaa taggatcgag 300
ctgggttcgcg cttcctggca tgaattgagt attagtgtca gtgatgtgtc tctctctgat 360
gaangacagt acacctgttc tttattnaca atgectgtca aaacttccaa ggcataatctc 420
accgttctgg tgttcctgaa aagcncaga ttagtggatt ctcatcacca gttatggagg 480
gtgacttgat gcagctgact tgcaaaacat ctggtagtaa acctgcagct gatataagat 540
ggttcncaaa tgacaaagag attaaagatg taaaatattt aaaagaagag gatgcaaatc 600
gcaagacatt cactgtcagc agcacactgg acttccgagt ggaccggagt gatgatggag 660
tggcggtcat ctgcagagta gatcacgaat ccctcaatgc caccctcag gttagccatgc 720
aggtgctaga aatacactat acaccatcag ttaagattat accatcgact ctttttccac 780
aagaaggaca gcctttaatt ttgacttgtg aatccaaagg aaaaccactg ccagaacctg 840
ttttgtggac aaaggatggc ggagaattac cagatcctga ccgaatgggt gtgagtggta 900
gggagctaaa cattcttttc ctgaacaaaa cggataatgg tacatatcga tgtgaagcca 960
caaacctcga g

```

971

<210> 487

<211> 833

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (111)

<220>

<221> unsure

<222> (399)

<400> 487

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gaattcggcc aaagaggcct aagaaagtga aaagggaaga aagatgtata cataaaaaata 60
cgaatggatt ctggaatttt tagtctagta cagactctct aaattgagtc nggatctaga 120
gaaagtttag aattcttaact gtagattatt ttacatttag gacagtgaag agtggacact 180
ttaaaaaatag ctacttacat gctttgaaag gagctcagat aaaatattgg catgttcatt 240
gaacattctt cattaggctc cagtgggagc atgttactat gctgtgagta tctggcatgg 300
aagatgttat catataatat gagacacagg aaaataatgg tctacttaat tgctgtttaa 360
gtatgattac acgtatttgt agttgtatga tgtcatgtng aacaaacatt tgtagacaa 420
gagattaaag tccgttggtt aaatctgatt ttgccaagag atgggggaaag tacaagtatg 480
gccatctcct ttactgtgt ccttctcag ataaccatgt aaaaagaagc tgagatagta 540
tgatagtgtc ttatttttgt agtgaggatt ctggaaagtt ctgtcttctg gtgtgtgtat 600
gtattttgtt ttaaatata agagtaatgc tcattgaaga aaacttgtaa aatagaaaaa 660
atagaaatat aaattatgca taatctcaca ccagaaata actattgtta atgttttggc 720
atatttctgt ttgttttttg tttttttgag acagagtctc actctgggtc ccaggctgaa 780
gtgcagtggg gcgatcttgg ctactgcaa cctctgtctc ccgggtactc gag 833

```

<210> 488

<211> 522

<212> DNA

<213> Homo sapiens

<400> 488

```

gaattcggcc aaagaggcct agcaatcgct tacaggaagt tttgaatgac tactataaag 60
agaaggcaga gaattgtgta aaattgaata cccttgaacc cttggaggat caagacctgc 120
caatgaatga gcttgatgag tctgaggagg aagaaatgat tactgtagtc cttgaagaag 180
ccaaagagaa gtgggattgt gaatctattt gtagtacata ctcaaattta tataaccatc 240

```

```

cacagcttat caagtatcaa ccaaagccca aacaaattcg aatatcttct aaaacaggaa 300
tacctctcaa tgtcttacca aagaaaggac tcacagcaaa gcaaactgaa agaatacaga 360
tgattaatgg cagtgatctt cctaaagtat caactcagcc acgttctaaa aatgaaagca 420
aagaagataa aagagcaaga aagcaagcta taaaagaaga gcgcaaggaa cgaagagtgg 480
agaagaaagc taacaaatta gcatttaagc tggagactcg ag 522

```

<210> 489

<211> 643

<212> DNA

<213> Homo sapiens

<400> 489

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gaattcggcc aaagaggcct acatattctc cgtagtcaca gtttcagaac tgagtaagga 60
tccttggtac ttggtggcat ctgttgaaact gaggagcatt tctcattgta aagattgcct 120
ttgttctgtc taaaagtctg gagaaatccc aaagactttt cctatgtact aggcatttta 180
ttttgattga cttacaaact cttcttaatc attatcaatc tcggtttttt tgtggtgcag 240
tggaaggaga aataggctta gtttctgcct ctgattagcc gcacagcctt gaacaaatca 300
catttcattt ttgaacttac ctctactgtt agactaggcg actcacattt gaggactttt 360
ctcgggtatc ttgagggttt gtgatcctga acccttaaac agtgcttttt tgttacacag 420
gagggccttt ttggggggat gaccagtaca gacatgccag ttagttttac tagtgggatc 480
ccaaatccaa agcagtgtag tgggtattgg tcagtgacta accaggcagc taagaagtct 540
taggcagcag ccagacatg tatagagggg cagtttagag gagaacaggg gtgggaaagg 600
gagcaagggg cagatagctc agcaaggaaa gaatcggtc gag 643

```

<210> 490

<211> 434

<212> DNA

<213> Homo sapiens

<400> 490

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gaattcggcc aaagaggcct aggggactgg agaattggcca tgccaagtgg cctgtataaa 60
aagtaacrga agtcatgggg ccagagtgcg atttttctga atgaaccaca aatggcatgc 120
tggtgattga aaaccactga agacaggaag aagaggaaca ggcagtttga aggttagcac 180
aaaaatcagg cattggcttg gcttctgcc a ttggtgagac tccattcaa tgatttcaca 240
tagccctcgg gctggccacc aaaactgtct ccttatttct ctccatgctg acctcctcct 300
cccctcagcc actgctcatt cctctttctc ccagacacga aaatttttagg tcgcttttcc 360
tcattcctct acactgtcct aagcctcagt agtagtcttc ttcttatctc tcccggagtg 420
ggggctggct cgag 434

```

<210> 491

<211> 218

<212> DNA

<213> Homo sapiens

<400> 491

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gaattcggcg ccgcgtcgac caagtctctt cctgcataga gtgggtagt gattacctct 60
aggattgtga aggtggggag agaattgcgt taaagatgct gcttcccagt ctagtactgt 120
tttctgttct gtttgccagt ctagtgaatt gtcgatgac cagccaccac tctccctcat 180
tgcaagggca gataggagtg agctggctct ttctcgag 218

```

<210> 492

<211> 693

<212> DNA

<213> Homo sapiens

<400> 492

```

gaattcggcc aaagaggcct aaaagtaact tcaaaattta aaatactaga acgtttgctg 60
cgataaatct tttggatttt tgtgtttttc taatgagaat actgtttttc attacctaaa 120
gaacaatttg ctaaacatga gaaatcactc actttgatta tgtatagatt acataggaag 180
aacaatcaca tcagtaagtt atagtttata ttaaaggtaa ttttctgttg gtcataaca 240

```

aatataccag cattcatgat agcatttcag ctttttccaa ggtaccaagt gtacttattt 300
 tgttggtgtt gttggtgttg ttttttagaa ggaattcagc tctgatgttt ttaaagaaaa 360
 ccagcatctc tgatgttgca acatacgtgt aaaatgggtg ttacatctat cctgccattt 420
 aacccacag ttaataaagt ggctgaaaat aatagtagct ctggcttggg gcttgacctg 480
 gttaaatact gtcttaaagc tcatacaaaa caaataggct tttccataag tggcctttta 540
 gaaaacatgg aagacaattc atgtttgaca aatgctgaca gggggaagaa agcccagtgt 600
 aaaaatgaat cgcgttttaa gtgattcggg taaagagttt gggctcccg agcaaaactaa 660
 tactagataa taaggaaatg ggggactctc gag 693

<210> 493

<211> 228

<212> DNA

<213> Homo sapiens

<400> 493

gaattcggcg cgcgctcgac ttttaagcta tttgtctgtt aagtatataa taccaaaacg 60
 caggttggtt aaattaggat ttccaagtaa tttacgtcgt cttcaaaatt cctgggggtct 120
 atcaatcaga aacgccagaa agtttggtga ctagtctcac attgttaagg gagtatctat 180
 aataaaattc aaatgcgtta ttttaaaata agtaaaggac ttctcgag 228

<210> 494

<211> 230

<212> DNA

<213> Homo sapiens

<400> 494

gaattcggcc aaagaggcct aattgtaaag aaaaggctta cagaatattt aaatcgtatg 60
 gttaatttta tgttcataaa gttttatttt ttgttacttc atggaatata ttttccgtgt 120
 cagaagacta gaagtctcgg gccggcggtg gtggctcggc cctgtagtct tgaactcctg 180
 acctcgggtg atccccccac ctccggtccc ggagtggggg gatcctcgag 230

<210> 495

<211> 135

<212> DNA

<213> Homo sapiens

<400> 495

gaattcggcg cgcgctcgac aaaaatgggt atatcccttt atattgtatt aatgtcatgt 60
 ctagttaatc atcctaaaga aataaccagt cagccggcac agtggctcac acctgtaatc 120
 ccagcacgtc tcgag 135

<210> 496

<211> 522

<212> DNA

<213> Homo sapiens

<400> 496

gaattcggcc aaagaggcct ataggccgtg aatgattaaa taaaagtcta agttcaccgc 60
 agcctggata aaataaaact caaagcccag aaacttcaaa taaaataaga aaaaatcata 120
 atttttcacc tcaaaaggaa actgagaaga gaagtatgat gtgacagaaa ctatgatttc 180
 aaatggaggg tttcttttgt tgtttgtttt tcagaactag actcacattt tacaaaaggc 240
 tccctaccca taaggaagaa agttttgaga gtaatgaggt tgatctgaac tgttaaaaac 300
 tttctaactg agatatagca acatatgggt tggcagaata aaaaatggcca caaaatcttt 360
 aacattcctt ccattccagaa gtgagggggtc tatgttcctt ctccctgagt aaggtggggc 420
 cactgagtat tttcactaag agaattcagc agaggctggg tgcgggtggc catgcctgta 480
 atcccagcac tttaggaggc caatgcagca ggatcactcg ag 522

<210> 497

<211> 493

<212> DNA

<213> Homo sapiens

<400> 497

```

gaattcgcg cgcgctcgac gtgggttcat ctgtggcact ggaatcagca gtcattcttc 60
aaatctgaga tccctaaatc cactgtcttg attgttcttt tgccagttgt caacaagccc 120
ttctcaaatt cttcttcagt tattttgcct ttcttaagtt ttttcaagag tcttgtgtca 180
ttaagaagtt cttccatgtc ctcattcttca atatcagaac cctcttccct tttccttttc 240
tcattcattt ttttcttctt ttcttttttg gccttctgct ttgaccaagc tttatttttt 300
atgaattttc tttcccttc attttctgtt ttctctcttc tttgttctc caggagtttc 360
tgctctgtct tttctctgat tttatcttta aatggaaatcg tgtcgggtatt aacgtccacg 420
ggcacaaaat ctggaaactg ctttctcttc aattctggca tcttgggcat cctcagcagg 480
gcaaaacctc gag 493

```

<210> 498

<211> 202

<212> DNA

<213> Homo sapiens

<400> 498

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gaattcgcg cgcgctcgac cccaggtctg tatggagggg caccacggct tttttgtttt 60
ttgtttgttt gtttttaatc tcagccttgg cgtgagctgg ggccttcttc tcttctccag 120
cctctccctt tcaactctta cccagcatcc tgccccctg tccaaaaaca gcaggacatc 180
agaccatcc catcacctcg ag 202

```

<210> 499

<211> 393

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (12)

<400> 499

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gaattcgcg cgcgctcgac ccctctccag atattcaggt gagaatcaga agccagccat 60
cacctttact ttgagaaatc tgggctctga gcgtcttgca tctgaatttc ccccaggcct 120
ctcatgccat ccattccctt tgagagcttc ctcccgttc gatcactgat tctacctgct 180
ctccaggggc ctctggcttc ctccggggagc tgggtctcag atcccaggcg ctggtgccac 240
ctcagggttg caccaaggct gggaaaaggg tttctgcct tgcttggtta tcacctttgc 300
agaggggaag cacttgggac agttgctagt ctcacctcc tctcttttgc ctgttcatca 360
tagtggcttt tccacgttct ggccactctc gag 393

```

<210> 500

<211> 145

<212> DNA

<213> Homo sapiens

<400> 500

```

gaattcgcg cgcgctcgac atttattaat gcatatattt ccctgcttg ttgtacaagt 60
aagttactct tttcttttaa tctgtaagat tcatgaaatt cggggccagg gaaacagttt 120
agccttaggg aagggaacac tcgag 145

```

<210> 501

<211> 182

<212> DNA

<213> Homo sapiens

<400> 501

```

gaattcgcg cgcgctcgac tgggctgtcc ttggtggtct tgctcttctc agagaacagt 60
ggtaggagg gcagctcaga ttctgaactc agggacatgc ggagcacctc ccgaggcact 120

```

gaggaagacc tggctcgtg ccttctctgga gggacaatct gctcttcacc tctaacctcg 180
ag 182

<210> 502
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (346)

<400> 502
gaatttcgac aagaggtggt atctggaaga ttaataagtg ttcaatttaa aacattcagt 60
aagcttgctc tgtattcctg cacgaagagt agaacagcaa tatattccat aaaagtaaag 120
caaaataaag ttattccaag taaactaaat tagaaggctt tttatgaact gggcaactgt 180
tggaactaag ctggtatggg gttgttagct gattgtaatg tgcccagcat tagaatacta 240
atccagattt ttatattacc catccttctt gtttcttctg agcagcagtc agagatcact 300
ggttggttca caggaataag caggattagc ctaaattgca gaaacnaact taaaacaaca 360
gtaggccatg aaggccga 378

<210> 503
<211> 427
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (59) .. (60)

<220>
<221> unsure
<222> (166)

<400> 503
gaattcggcc ttcattggcct accagaacat gcatatgctt ctttctagtt tatcagttnn 60
atacacagca gtctttgact ctctttttga aggaggtgcc tcataccttc ttcagccact 120
ccccactcca ttctccccac cccctcctc ctgcacctgc ttttcngtgg cctgcatttg 180
gtacatttgc attctgctca gtagccacag taacgtctca ccactttggc tgggtgtctga 240
cacctgcagg tttccagcac tgccacctgg gggctcttcta accacagagc agatcatgcc 300
cctcctgctg gcgcttcttc aatactccaa ggagagcatt cgggctcctg ggtttggtat 360
gaaacccctt tgcaatcggt gccagcccat gtgtgcagct tctcactag tcaactccaca 420
actcgag 427

<210> 504
<211> 270
<212> DNA
<213> Homo sapiens

<400> 504
gtaggccatg aaggccggcc ttcattggcct acagttagtg tctccatctg ggcaagagac 60
aacatgtgaa agtctcattt atgctggaag atagggtagg gttgagagt atggttacaa 120
gcatttttaac tttacatcta caagagtgtg gtacagatta agtccttgat aatcatgttg 180
tatatttaaa aacatctata gatgatttta tgtagaatgg gaattttaac attttaaatg 240
tgtttatttc tttggtgggg aaaactcgag 270

<210> 505
<211> 335
<212> DNA
<213> Homo sapiens

<400> 505

gaattcggcc ttcattggcct agtcctttca ggtaagtatt attactatta tgcccattgt 60
 acagatggga aaattaaact cactagtgta ggataaataa ccccaaaagt tcacatagct 120
 gctaagtggg tgaatgaga ttggaattta ggcagaggat tccagagtgt gttctctttg 180
 acatatgggc ataaccatct ttcattgtca ataaatatag acttcacctg tacttgatt 240
 ggctgtatag tatttcaact tcatctcact caaactctta gtaatatcca catatcttca 300
 tttcttgaaa ggattttttc tttacagtgc tcgag 335

<210> 506

<211> 317

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (293)

<400> 506

gaattcggcc ttcattggcct acacaaacta tgcctccttc acagcctcag ggaacttatg 60
 cctctccacc tcccatgtca cccatgaaag caatgagtaa tccagcaggc actcctcctc 120
 cacaagtcag gccgggaagt gctgggatac caatggaagt tggcagttat ccaaatatgc 180
 cccatctca gccatctcac cagccccctg gtgccatggg aatcggacag aggaatatgg 240
 gccccagaaa catgcagcag tctcgccat ttataggcat gtctcggca ccnagggaat 300
 tgactggagt actcgag 317

<210> 507

<211> 546

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (173)

<220>

<221> unsure

<222> (250)

<220>

<221> unsure

<222> (292)

<400> 507

gcgattgaat tctagacctg ctctgtgtgc aacctcacc atcctccac tccagaactc 60
 ttagttgttg taaaactgga actctgtacc cactaaacaa cagcaaccac tgttctactg 120
 cctgtctctg cgattttgac tactctaggt accacatata agtggaatcc tanagtactt 180
 gtgtttttg ggccacaggg ttttatttat tttctttct ccacctccag aatccccgcg 240
 ttctgtccn ggctgggttt gcttctctg ggtcgtggg tgctatttgc angtgggtga 300
 ggagccctct ccccatccat cctgcttctg ttttctctc ggtgtctaac tggcctctac 360
 ctttgtctct gtctctctg cctctgtct tggtagctg acggtaggga aagtgtccag 420
 cggaatagg gctgcagctg aagtcctgg caatctgtac atgaatgat acagacctaa 480
 ggcccaggcc acctctccag acctggtgag gacatgcacc cccagccttc acccacagct 540
 ctcgag 546

<210> 508

<211> 379

<212> DNA

<213> Homo sapiens

<400> 508


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gaattcggcc ttcattggcct acatctttct aactcaagga atggtgctga ttttttaaat 60
gttttgacacc aggccttgtt tttccagctg agcattctca ttttgctttt ctctaagact 120
atcaaagaca aggtattaat agtaggatta ttcctagatc agaattgttc atacattcct 180
aaagggttat gtggaaattg gcttaggaaa actttgagta gcagagactg aggatgagtg 240
ctagagatga aatcaggaca gatttggtgc agttaattct tgccaagcaa attagtggta 300
aatgtcacat tgttatgtga attgagcaca tattttttaa gaaagtgtac aaaaaatttt 360
tagaaccaca catctcgag                                     379

```

<210> 509

<211> 376

<212> DNA

<213> Homo sapiens

<400> 509

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gaattcggcc aaagaggcct acttggcttt gataccttac tggacagtgt atttccaaat 60
gcagacaaca tatgttttac agagtcttca ttgaggatt ccagaaattt caaatattac 120
aaccactcct cacacgctcc ctgcagcctg gctgaccatg tttgatgctg tgctcatcct 180
cctgctcacc cctctgaagg acaaactggc cgatcccatt ttgagaagac atggcctgct 240
cccactctcc ctgaagagga tcgccgtggg catgttcttt gtcattgtgct cagcctttgc 300
tgcaggaatt ttggagagta aaaggctgaa ccttggttaa gagaaaacca ttaatcagac 360
catcggcacc gtcgag                                     376

```

<210> 510

<211> 439

<212> DNA

<213> Homo sapiens

<400> 510

```

gaattcggcc aaagaggcct acaagttcaa caattccagg aaatatattt ctatcactgt 60
gccatccaaa acccaaacaa tgtcaccaca catcaagtca gttgacgacg ttgtgggtact 120
tggcatgaat ctccagcaag ttaacaaact tactcagttt ttcattatgtg ttgctggagt 180
ttttgtattt tacctaattt atgggtattt acaggaatta atattttcag tggagggttt 240
taagtccctg ggctggtaac ttaccttagt gcagtttgcc ttttactcca tatttggcct 300
aatagaactt cagcttatcc aggacaaaag gaggagaata ccaggaaaaa cctacatgat 360
aatagctttt ctaactgtgg gtactatggg gttatcaaac acttccttgg gctacctgaa 420
ttaccttacc caagtcgag                                     439

```

<210> 511

<211> 289

<212> DNA

<213> Homo sapiens

<400> 511

```

gaattcggcc ttcattggcct actttaaatg ccctagctat tcccagaggg gtttttttgt 60
ttgttttttt gggttttgatt ttctttttgt ttttctttct tcttcttatt tttttcattt 120
gagtccttagc tccattttta gttatgcttc tgaccttgta tggctctgta gcttgcccag 180
aaataagacc actgttttga actaccacaa aagtataaat gaatatattt atgccacaat 240
ctttcctggt gccctgtggg tctctgctga aatgaatcag gagctcgag                                     289

```

<210> 512

<211> 577

<212> DNA

<213> Homo sapiens

<400> 512

```

gtttcccaaa gtcattgctc agcagacggg gagtttgccc agtttttctt gccttgactt 60
ttttcctctt gttcagcaaa tttcactgga tttccagctg ctgtgtcata atccctaggt 120
acagctgttc tgtctctgcc aaagctgttg cttgcagggc tcccatttga gctgccatag 180
ctatctgagt tactggcatt cctgatgcca acagggcagc aacattgaga acaaaatctc 240
tagtaactgg agctatttct tgtttttgtt tttcaatgat ttctttttct tttaaaaaat 300

```

```

tttttcccaa caccatccc aactatttct ttttcttget gttcttgtaa tttctttgcc 360
tagtccatcc tcccagctaa agcttcttat gcattccttg ctgtgcctct gcctctgaag 420
agagatgaac tggaaatctg gcttaaactt ctgctaaatc ttagtttctc aatgctcttc 480
tttctctctt gtcttctgct tctgtacta cttctgcttc tttctatgc atgtcatatt 540
tatttattta cttatttttc acacgcaaac actcgag 577

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<210> 513

<211> 353

<212> DNA

<213> Homo sapiens

<400> 513

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gtcggaggcg tctgcgtcat tctccagtga atctgagagg ggctaatacc aaggctcacgc 60
tattcccagg aacttctagc ccagctggga ataaccatca actaccata tctaattctt 120
ggttaacaaa taccttccac agtcttcatt agcaaatgct cttcttgctc gctgcaagga 180
gagccaacat tctcattaag tctctgttct tctgtttaac tgtttacctg actgtccttc 240
agcacgtaca cgggttcagc tcagctacag accatcactg ctacagagcg acaacttccc 300
attcggactt aggcagtgtt tcagttcatt acagagaagt ggttttctc gag 353

```

<210> 514

<211> 180

<212> DNA

<213> Homo sapiens

<400> 514

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gaattcggcc ttcattggcct agtctttctg gaaatgagtg tctcaactg cttgtctaaa 60
aaattaacat tagctttctc ctttttcttc ctttttgaga tagggctctg ctctgttgcc 120
caggctggag tgcagtggca cgatcctggc tcgtgcaac ctccacctcc cagactcgag 180

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<210> 515

<211> 308

<212> DNA

<213> Homo sapiens

<400> 515

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gcgattgaat tctagacctg cctcgagtct tgaccagcta cgtattccac tgaccagcct 60
catcatctct gccctcaaca gtggaatga tctctttccc acagatgttc tccctccctc 120
cttctctccc tttcccttcc tacaaacgtg aactcttaag tctttactct ctggtcttca 180
gaagggtttg gttacaagca gtcttcccat ttaatttggt gctctgcctt ttaaaattgt 240
tttttgtctt ttgtgttca gagaacgacc agagtatttt ctccccagtg tgtcccagca 300
gactcgag 308

```

<210> 516

<211> 305

<212> DNA

<213> Homo sapiens

<400> 516

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gaattcggcc aaagaggcct agtcgttaat aaatcacatc ctagtctttc agcgttcccg 60
taagcagacg acatcttcag tttcttagct cttgtagttt caacactgca acatcaatga 120
tgcatatgtc cagaatcagt tacaaagacc atccgattct tttctctta gttcatctat 180
ttttcactgt ctcttggtcc caagtgtatc tgagtgatta cctcttgga ttctctgcta 240
ttgtcgttg gggtgctctc gattgtcccc gtgttttggt ggctggttgg gagagggcgc 300
tcgag 305

```

<210> 517

<211> 287

<212> DNA

<213> Homo sapiens

<400> 517

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gaattcggcc aaagaggcct acgtcaaadc tctcggcaag gtcttgccga ttctgtgtga 60
tgcaccactc tcggacgctc ctgaggtcgt cagaaatgag gaagtgtgtg gctgtgtcgg 120
catccaaggt cgtatccact gtgaaaagga aaaaaagttg atcagaaaat ggacagaagc 180
caaccccatg cctctcctct acttcaaagg cccaaatata tcttgacttt ggtttcttta 240
attctcttct tcccccaaaa tcaaaacttt tcatgaggct actcgag 287

```

<210> 518

<211> 390

<212> DNA

<213> Homo sapiens

<400> 518

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gaattgccaa cagaggccta gctgatgttt gctgtgaccc acatgttcta cgcctccgcc 60
tttggcatgc agccactggc tcttcggaca ggtctggtga tcgcatcgct gtcgggcctg 120
tgctatgccc tectctaccc atgctctca ggtgccttca cctacctggt gggggtctat 180
gtggccctta tcggcttcat gggctggcga gctatggcag ggtgcggct ggccggggca 240
gactggcgct ggacagagct ggcagctggc agtgggtcac tcttctttat catctcagac 300
ctgaccatcg ccctcaacaa attctgtttt cctgtgccct actctcgggc gcttatcatg 360
tccacctact atgtgaccca gatgctcgag 390

```

<210> 519

<211> 376

<212> DNA

<213> Homo sapiens

<400> 519

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gaattcggcc ttcatggcct actcagtata tatggaggca gaagcaacag ctctgtcttc 60
tgacacatct ttgaaaggtc agcctgaggt acctgcacaa ctctgggatg cagaagggtc 120
tatcaaaata ggctctgaaa aatctctgca ccttgaagtg gagatcactt caatagtctc 180
tgacaatact gggcaggagg agtctgggga aaactctgta cccaggaga tggaaaggca 240
acctgtgctc tctggggaag ctgcagaagc agtgcactca ggtacatctg taaagtcac 300
tagtggcccc ttccctctg ctccagaagg cttactgca ccagaaattg aaccagaagg 360
ggaaggccaa ctcgag 376

```

<210> 520

<211> 334

<212> DNA

<213> Homo sapiens

<400> 520

```

gaattcggcc ttcatggcct acaccctgt aaccgtgacc ccgagcaaac ttcctcacc 60
taggagattc cttgtgtccc cttccccgcc aatgtccct agcccagaag taaccaccgt 120
tctcacctcc atcatcagag atcagttttg ctggcctaga attcaccca aatgtcgtca 180
tacatgtgtt ttcttctgtg tgtggcctcc tttcatcaat acaatgtttt ttatttttgt 240
atattttttg agacagggtc ttgtctgtt ctccttcct agtgcagtgg ggcgccatca 300
cggctcgtg cagcctccaa ctccgggct cgag 334

```

<210> 521

<211> 508

<212> DNA

<213> Homo sapiens

<400> 521

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gaattcggcc ttcatggcct atggacaagg aagcattcag agcatggtgt catctgactc 60
cacatcacca gattcttctt taacagaaga atcacgttct gagacagcca gtagtttata 120
ccagaagatt tgtaatgggg gattatctcc tggtaaccca ggagattcta aggacatgaa 180
ggaaattgag cccaattatg aaagtccctc tagtaataat caggataaag attcatcaca 240
ggcttccaaa agctcaataa aagtccaga gaccacaaa gcagtccttg ctctccgatt 300
agaagagaaa gatggcaaga ttgctgtaca aactgagaag gaagaaagta aagcctctac 360

```

agatgttgct gggcaagcag taaccataaa ccttgtcccc acagaagagc aagcaaaacc 420
 ttaccgagtt gtgaacctgg aacagccatt gtgcaagcca tatactgtcg tggatgtgtc 480
 agcagccatg gccagtggagc acctcgag 508

<210> 522
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 522
 gaattcggcc ttcatggcct acaagaagaa gaagcagctg aagccgtggt gctggtattg 60
 taatagagat tttgatgatg agaagatcct tattcagcac caaaaagcaa agcattttta 120
 atgccatata tgtcacaaaga aattgtatac aggacctggc ttagctattc attgcatgca 180
 ggtacataaa gaaacaatag atgccgtacc aaatgcaata cctggaagaa cagacataga 240
 gttggaaata tatggtatgg aagggtattcc agaaaaagac atggatgaaa gacgacgact 300
 tcttgaacag aaaacacaag aaagtcaaaa aaagaagcaa caagatgatt ctgatgaata 360
 tgatgatgac gactctgcag cctcaacttc atttcagcca cagccactcg ag 412

<210> 523
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 523
 gaattcggcc ttcatggcct aattgcacct tcacagctca atccctgaag aattaggagc 60
 tcattttgaa agcaactaac ttctcaggtt tttcttatct ttcacatctt ggataaattc 120
 cctatcacat gagatcatgt tctaggaatt ccggactgta ccaactccaa gaaaaccacc 180
 atctatttta aatacttttt tgtttgtttg ttttgtttga gatggaatct tgctcgggtc 240
 cctaggctgg agtgaagtga cgcgatctca gctcactgca accttctcct cctgggttca 300
 agtgattctc ctgtctcagc ctccaagta gctcgag 337

<210> 524
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 524
 gaattcggcc ttcatggcct aggggtcatg aacattcaga cttttccatc ctggctggca 60
 ccatgcacag cagaagaaag aaaatctggc ttcttttgtt cagtgaagaa cagagagaaa 120
 gagaagaatg gatggcaggg tggggggtgg ggaggaaagg aggaagggat cactttaatt 180
 acaagcacac ccttttgggg gtacataagc agaataagctg tgaagaaacc ctcacccaaa 240
 taagccactt tgtttttaac acacacacac aaattcaaat ctacccaaat atctatcagt 300
 gaggtcttag ggtgttgcca gagggcccct tctcttgatc tttggcatat acctgagtgt 360
 tgggcagagt gctgacacta cctactgctg tgtgatcatc ttccctgtaca gatgggggga 420
 aaaaaacaga aggtctctga g 441

<210> 525
 <211> 342
 <212> DNA
 <213> Homo sapiens

<400> 525
 gaattcggcc ttcatggcct accctctcca catcaacaca tacagcacca tccgaaccat 60
 cagcatcaga cgtaaacaca tcaggcaccc ccacccccac aacaggatc ctgtaattct 120
 ggtaagtttt tgtctcctgg ttgtgtttg gctaactgtg aattaggatc tgcctttgt 180
 tatttagagc tcatgtagta ttactacca aaacctcttt acatctcttt ccttgcata 240
 atcctatagt tgtaactcat ttaattcata gactgacctg gcgactttct tgattaaaat 300
 ttattgtggc aacataggca aaccaacaa ccccttctcg ag 342

<210> 526

<211> 475
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (331)

<220>
 <221> unsure
 <222> (367)

<220>
 <221> unsure
 <222> (376)

<220>
 <221> unsure
 <222> (402)

<220>
 <221> unsure
 <222> (406)

<400> 526
 gaattcggcc ttcattggcct agcaattccc ctacatcaaa tgctcaagcc cccagctgga 60
 agttaagaga aagtcacctg cccaagaaac accgagttag gcacagaata ggttctgttag 120
 gttctgtccc acctaatat agctctcatt catggagaga ctgcttgtac cttaccaagt 180
 cctgtgtttg gccattatc gctttatacc atcatggctt taatacactc ctagtagggg 240
 aggggtttgt agtcccatgt tgcagagaca aaaactgagg cttggagaga gtgactggat 300
 tgtgtgatgg tcatatagga agtaagtggc ntgactggga tatgacatag gagaattgtt 360
 cttttnttt ttctcnacac tctctgttgt gtgcagggtc tnattnagat aaagataggg 420
 aattggggct aggtgggggtg gctcacacct ataatccag cactttaagc tcgag 475

<210> 527
 <211> 437
 <212> DNA
 <213> Homo sapiens

<400> 527
 gaattcggcc ttcattggcct agacgaagag gaggagaaaa accagctgga gattgagaga 60
 ctggaggagc agttgtctat caacgtctat gactacaact gccatgtgga cttgatcaga 120
 ctgctcaggc tggaaggagg cttaccaagg tgaggatggc ccgccagaag atgagtgaag 180
 tctttccctt gactgaagag ctctggctgg agtggctgca tgacgagatc agcatggccc 240
 aggatggcct ggacagagag cacgtgtatg acctctttga gaaagctgtg aaggattaca 300
 tttgtcctaa catttggtta gattatggcc agtactcagt tgggtgggatt ggtcagaaag 360
 gtggccttga gaaagtgcgc tccgtgtttg aaagggtctc ctcgtctggt ggtttacata 420
 tgaccaacag actcgag 437

<210> 528
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 528
 gtttattgta gtttttgatt tctgtaaaat aagagaaact tttgtattta ttattgaata 60
 agtgaatgaa gctattttta aataaagtta gaagaaagcc aatgcccgtg gcctgggcct 120
 ttgtgcagaa gacctcggcc ctctgtggc tgctgcttct aggcacctcc ctgtccccctg 180
 cgtggggaca ggccaagatt cctctggaaa cagtgaagct atgggctgac accttcggcg 240
 gggacctgta taacactgtg accaaatact caggctctct cttgctgcag aagaagtaca 300

aggatgtgga gtccagtcctg aagatcgagg aggtggatgg cttggagctg gtgaggaagt 360
tctcagagga catggagaac atgctgctag gaagactcga g 401

<210> 529
<211> 204
<212> DNA
<213> Homo sapiens

<400> 529
gaattcggcc ttcattggcct agaggggttct agggagaaag ccaccctgag cacacatgtc 60
tgggcacagt gggggctggg ggctggagct caggcaggat ggactaggct tgtggaggag 120
cgggtgggca tgagcatgtg aggacatgct gggagggtc aggaggtggc acagacattg 180
ccaaggccac tgcagggcct cgag 204

<210> 530
<211> 592
<212> DNA
<213> Homo sapiens

<400> 530
gaattcggcc ttcattggcct aagtaaacad tttatatata gcagtgattt ttataaggcc 60
tcaaataattt aagccagcct tatgagccat tcatttatat gaaatataaa attttattta 120
ttttgagatg gagtcttctg ctgttgccca ggctggagtg cagtgggtgtg atctcagctc 180
actgcaacct ccacctcccg ggttcaaacg attctcctgc ctcagcctcc caagcagctg 240
ggattacagg catgcaccac catgcccagc taattttttt tgtattttta gtagagacgc 300
aggtttctact gtgttggtca ggctgggtctt gaactcgtga cctcaaatga ttcacctgcc 360
tcagcctccc acaagtgtg ggattacagg catgaaccac tgcacccggc cacattttat 420
atttttaata taaaggcaga aaatcataat gtttcaaatt attttggtac ctagggtatct 480
actcttataa atcaagagtg ggtcttttaa aaaatatttt tgtaagatat tgaaggcctt 540
tatatatata ttattctatc caattagcat gcatattcct gttttactcg ag 592

<210> 531
<211> 347
<212> DNA
<213> Homo sapiens

<400> 531
gcgattgaat tctagacctg cctccttcgc cactagaccc ccagggcctg gtatgtggtg 60
atcgctcagg gcccatthtc ttcttttct cctcctccaa ggggtgggaa agagcatcag 120
aaggtctagg tggccccagg cccaacaat gctcctttaa aaggaaacta gattgttaca 180
aaggtcagag gctgaaaagt tatttcggcc ttttatecct ctaaattctt cacttctga 240
aaaaacaaac aaacaaaaaa gccactgagg gcccttgac taaatccagg cctgagttgc 300
tgggcagagg tcagtcttgt ccagacatgg gaaaaaata actcgag 347

<210> 532
<211> 368
<212> DNA
<213> Homo sapiens

<400> 532
gaattcggcc ttcattggcct aacggtaacg gcggaggcgg aggcggcgga ggtaagaagg 60
attccattac gtaccgggaa gttttggaga gcggactggc gcgctcccg gagctgggga 120
cgctcgattc cagcctccag gacatcacgg agggcgggcg ccaactgccg gtgcatttgt 180
tcaaggacca cgtagacaat gacaaggaga aactgaaaga attcggcacc gcgagagtgg 240
cagaagggat ttatgaatgc aaagagaagc gcgaggacgt gaagtcggag gacgaggacg 300
ggcagaccaa gctgaaacag aggcgcagcc gcaccaactt cacgctggag cagctgaacg 360
agctcgag 368

<210> 533
<211> 315

<212> DNA

<213> Homo sapiens

<400> 533

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gaattcggcc ttcattggcct actcccagct aatggagcag cctcccattt aacagggctg 60
tccatcagcc agctccggct ggctgaggca acccagcact gaaggggtta aggccagcca 120
gcatgtgtgg ctgttaatga ttgctaccca ccagggacct ggtgagtatt aaaggaaaac 180
cttctcccta ctctcagtg tgaaaggagt cagggtctaga ggcagcagag ggaacagcaa 240
agaagagccg ccacaatgaa agacggaaca catttctaca cccagtgact ggccagggtcc 300
cagaggatac tcgag                                     315

```

<210> 534

<211> 486

<212> DNA

<213> Homo sapiens

<400> 534

```

ggcggtgagc cgagatcgcg ccaactgcact ttagcctggg cgacagagca agactctgtc 60
tcaaaaaaaaa aaaaaaaaaa aagaatagta aatcaaatac aggtacagtc ccttagaata 120
gggtccccaa cccccggttt gtagtctgtt aggcattggg ttgcacagct ggtgagcaag 180
cattactgcc tgagccccgc ctccctgtcag atcagcgggt gctctagact ctcacaggaa 240
cgtgaacctt attgtgaact gcacgtgcga gagatctagg ttgtacactc cttatgaaaa 300
tctaaggcac tgcccactcc catccatgga aaaattatct tctacgaaac cagtttttgg 360
tgccaaaaag gttgaggact gctgccttgg aatatgaagc aaactttggg tgggtctgtt 420
agacaagact cccagatgac ttggaaatgg catgctgtca gctttttttg tcttattgcc 480
gagccg                                     486

```

<210> 535

<211> 305

<212> DNA

<213> Homo sapiens

<400> 535

```

gaattcggcc ttcattggcct agggaaatga cccaaaggaa aggtttccta tgctggttga 60
gaagaagtgt acttgccact gagcagtatg tcaggaaaga aggaatatta tctaggttta 120
gctttgataa gtgctattag taatgaatat ataacatggg aaccaatggt atctttaatg 180
ttgctgttgc tgggtgaacag agaattctaa gagctgttag aaagtagcac ttgatgcaag 240
ggatgttttg aaaaagaaaa attggtaatg cgaatgtata gaaagtaaag gaaggatgac 300
tcgag                                     305

```

<210> 536

<211> 352

<212> DNA

<213> Homo sapiens

<400> 536

```

gaattcggcc ttcattggcct aagccagagt ttcccacgcc tctgttctct agcagcccaa 60
gtgccttcgc tgggctactc ccacctggcc cttgcttttc attccttagg gcagtcactt 120
agcaccttcc aaagtgcctg cacatgtttc ttatttcatt tcttaaacat tcatattacc 180
actattttaga ttgaaggaaac agaattgggt tgggcttgaa gagaatacaa agagatctgt 240
cttcaattat ctgatagtag taaagtttca cgggagaaag aaagatttcg gttccacata 300
aggaaaaact tggaaagttt tgaatggaaa gttcatagag agctgcctcg ag 352

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<210> 537

<211> 387

<212> DNA

<213> Homo sapiens

<400> 537

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gaattcggcc ttcattggcct agaaagcatc ttactaacg tgtgcctcag tttccttatg 60

```

```

tgtaagggtgg gggtaatagc agttcccac ccatgggctg tcatgaggac tggatgaggt 120
ggcacatgga cccacacctg catggagttg gggagccaca ccctaactcc ccaccccaga 180
gccttctcaa gtatttttgg ctcttggttg ctcccttctg gcactggagg agcatgaacc 240
ttcctgatct gtgcgccctg ccctggccca gagctggtgt aaataaatgc ttaacccagc 300
tcattctcca gaacctgaa gcggggatga gtacttcct tccttagatg aggacactga 360
ggccagaggg tgagtaacca gctcgag 387

```

<210> 538

<211> 529

<212> DNA

<213> Homo sapiens

<400> 538

```

gaattcggcc ttcatggcct agagaattcc tgtcattcct ggcctcagtt ctgcagggac 60
cgagggcgag acacgcctg gccaggtgt ggcgtctctg tcccatctg gttttaggta 120
acaagcggag ctcttgaact tctcggtctt cggcagcggc tgtatttctt ctggcctggg 180
tggtcttttc ccgctctggt ttgcttttct gccttcttag tttttgggtt accagataga 240
aggcttggcc tcagttttgg cctgccttt ttgctcttct taacgagcac gaagggcgca 300
tagggacgag gagacacct ttattcttgg ctggttctag catgctgctt catgtccct 360
ggagcagcgt gcccttctga aaaccggtg ctaaatgtct cttctgttta tatcaggcgt 420
gttacacctt cacacgcact agggatccag gtaagccag cgccccgaac gtcattactg 480
actggtgaca ctgcagtaag taaacctttt ttgcaaaca cttctcgag 529

```

<210> 539

<211> 500

<212> DNA

<213> Homo sapiens

<400> 539

```

gaattcggcc ttcatggcct acgatcataa agaaaaatca actgaaataa atcatgaaat 60
tcctcactgt gtgaataaac taccaaagca agaggattct aagagaaaat atgaagattt 120
atcaggggaa gagaaacatt tggaaatcca aatactgctg gagaatactg gaagacaaaa 180
agacaaaaaa gaagaccaag aaaagaaaaa cttttttgtg aaagaagagc aagaactacc 240
accaaaaata attgaagtta ttcattctga aagagaaagc aatcangaag atgttctagt 300
aagagaaaag tttaaaagaa gcatgcagag aaatgggtgt gatgacacac ttggcaaagg 360
cactgctccc tacacgaaag gcccctcag acaagaaga cattactcat tcacagaagc 420
aactgaaaac ctgcatcatg ggcttctgc ttcagggggg ccagccaatg ccggcaacat 480
gaggtacagt catactcgag 500

```

<210> 540

<211> 374

<212> DNA

<213> Homo sapiens

<400> 540

```

gaattcggcc ttcatggcct ataggccatg aaggccggga agtttatagg ctataccaat 60
aaacatctga aaagatgctc aatttcggaa ataataaaga aataaagaga aaatcaagaa 120
aactttttcc ctaaaagatt gaaaataaga caatcgaggc tgactagggg ggagcagggtg 180
ctgccctacy tgccagccag ggggtgatgg tgccagccca ccgagcactg gcgggtggta 240
atggtggttg accagcagct ggagatgctc cttegagggg gcagtcgggc agtcacaggg 300
ctgaaaagta cctcaagccc tcacacaggg accccaagtc ttggggggagc ggggtacagt 360
acagatgact cgag 374

```

<210> 541

<211> 357

<212> DNA

<213> Homo sapiens

<400> 541

```

gaattcggcc ttcatggcct acaccttttg ccgtcccac actgcgccac cctgcacctg 60

```



```
gcaccactca gcacctctc ctggccctac ccgtccgcca tggaatccag ccactgagaa 120
aggcaccatt gaaacagaca taatcatggg tcagaagatg tgactcagcc tctactcaaa 180
tctgtttgtc aaacccaaag gtgcttcgtg ttttaagtcaa actatcccta atgcattttc 240
cattctcttc aaaaaccaca gccatcagtt ttaaaaaaag acagaaaaca tgaagcacac 300
ttctcttgcc tggcttacca ttttctttga tccattaaaa tccaagagta cctcgag 357
```

<210> 542

<211> 557

<212> DNA

<213> Homo sapiens

<400> 542

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gaattcggcc ttcattggcct agcctatctc agtactatctt ctaaagacct gattacatat 60
atgagtggga ccaaaagtac cgagttcaac aacaccgtct cttgtagcaa tcggccacat 120
tgcttactg aaatccagag cctaaccttc aatcccaccg ccggctgccc gtcgctcgcc 180
aaagaaatgt tcgccatgaa aactaaggct gccttagcta tctggtgccc aggctattcg 240
gaaactcaga taaatgctac tcaggcaatg aagaagagga gaaaaaggaa agtcacaacc 300
aataaatgtc tggacaagt gtcacaatta caaggattgt ggcgtcgctt caatcgacct 360
ttactgaaac aacagtaaac catctttatt atggtcatat ttcacagcac caaaataaat 420
catctttatt aagtagatga aacattaact ctaactgtga caaagaagac cacaataagt 480
tatcttttaa ttacagaaga gtttcttaac ttacttttgt aagtttttat tgtgtaagtt 540
tataatgcag gctcgag 557
```

<210> 543

<211> 406

<212> DNA

<213> Homo sapiens

<400> 543

```
gaattcggcc ttcattggcct agtggccttt caggagctg agggagcaaa gattctaaga 60
ataattttta actattagta ttgatggcct gtggacctga gcactttaca cgactactcc 120
caatcccttag gactcggagg caggcgctgt tcacatcccc cagtttacag ggggagaaac 180
tgaggcccag agaggttaag cagcttgccc agggccacac agctagcgag aagtggagcc 240
aggatctggt cccatccact gcaatccaaa gtctgtgcta tgagccgccc tctgtcgtg 300
tcctgtctgc cttgtttgaa agtaggcgtc cccttcacgg gccaatgac cgtgcaactc 360
tttgggtgag gcattgggga ataaacagaa taaaagggtg ctcgag 406
```

<210> 544

<211> 400

<212> DNA

<213> Homo sapiens

<400> 544

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gaattcggcc ttcattggcct aatgggaaca gaaaaatggc taagtaatat aaggcaagga 60
attctaaaca acagttgaat gagctagatc tctgagtaac accctgggca gaatctaaga 120
gctgaccttc acattcacta tctttaaaac taaaaagcta ctccagctac aactgacttg 180
aacaactcag aggattttac aaagttacct ctggacattt caaacgaccc cttaactctg 240
gtggctcacc ctcaagcgcc tgagataatg acattgcatg aatgaggcca tgaggaaaac 300
cccacctatc tttcagtcctt gtttttgaga agcacgaaca catacaatca cagtgcgcgc 360
acactctcag tagcagtggt gctgagtgct ctgcctcgag 400
```

<210> 545

<211> 306

<212> DNA

<213> Homo sapiens

<400> 545

```
gaattcggct tcatggccta cacgcgtgac ccggaaggctc ttcccgccac actccagagc 60
ggatgtgagg ggcgccgatg gcggagggaa cggcgagggc tcctctagag aatggtggtg 120
gtggcgactc gggagccgga gctttggaac gaggagtggc gccattaag cgtcaatacc 180
```

tcaccaccaa ggagcagttt caccaattcc tggaagccaa agggcaggag aagacttgcc 240
 gggaaaccga ggtaggagac cctgctggca atgagctggc tgagcctgag gccaaagcgga 300
 ctcgag 306

<210> 546
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 546
 gctcgagtgg tccaggcact ggggtacatg aagaggcctt tgagatattt tctgttggct 60
 tttctgggta tatcatcctc agctgggcgc tttcctgcag cccttggttc actttctggc 120
 tctccctcac tctctggctc tctttcactg tctggtcttc cttcacccctc tgcccttccc 180
 cctctctctg gctttccctc tgtctttgat cctccctgca tctctgactt tcccttcttc 240
 tcttttatca ggggtggggg tcacagtctt tgtctagacc tgctcgag 288

<210> 547
 <211> 303
 <212> DNA
 <213> Homo sapiens

<400> 547
 gctttgatga ggacccctcc atcttctccc ctggcagtgt ctactttgag aagggccagg 60
 atgctgggct ctgcagcatc aatcctgtgg cctgcctccc cgacctggca gcctgtgtcc 120
 cggacttacc ccctttctct taccacggct tctagtcttg aggggtgtggc gggcggcgtg 180
 gttaggcaca tgtacttttc cctgtttcta cttctctatc tccgtgtttt tatcacacct 240
 gctccccaga ttcccacccc ctcaatgttc ctctcacacg aaaccccat cagtaccctc 300
 gag 303

<210> 548
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 548
 gaattcggcc ttcatggcct acttgctgc aacatcttaa ttcttactta ggtatattgg 60
 atccttttat attagtgttt cttgggtttc ctttgccac acttgaatat tttccagaag 120
 atctgctaaa ggcaattttt aacatcaaat tcttagctag attggattct caactgaaa 180
 ttttatctcc atctcgaagt gcaagagtcc agtttcatct tatggagtta aatagatcag 240
 tctgcttggg atgccctgag tttcagattc catggtttca tgaccgcttc tgtcaacaat 300
 ataataaagg tattggtggc atggatggaa cacaacagca gattttttaa atgttagcag 360
 agatctcgag 370

<210> 549
 <211> 353
 <212> DNA
 <213> Mus musculus

<400> 549
 gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
 cgatcctgct gctggcgctg gtcgctgcca gccaggcgga gccctgcac ttcaaggact 120
 gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
 gtcagctgca caaaggccag tcctacagtg tcaacatcac ctttaccagc ggcactcagt 240
 cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcccta 300
 ttcttgagcc tgacggttgt aagagtggaa tcaactgccc ccccagggtc gag 353

<210> 550
 <211> 295
 <212> DNA
 <213> Mus musculus

<400> 550

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gaattcggcc aaagaggcct aaacgttaaa gcaagagaaa cgatatctgc aggacatctg 60
gtcctaaact ggaacagaga cgcttggaat ttgtttttgt tttgtttgt ttgtttgttt 120
tttcttgaag tgccaaaggt caattttaca gaagatgagt ttaaaaatgt ttggacattt 180
cttgagggtg gctgtgtggg gaacggcttg cttacaggta cagcaggta aaccgcctga 240
cagtctcaca ggttgtatcc cactccttac ctgtggcccc acccagcaag tcgag 295

```

<210> 551

<211> 249

<212> DNA

<213> Mus musculus

<400> 551

```

gaattcggcc aaagaggcct agtggcaagg aaagtttcac ttgggtgttc catcagtggg 60
acaactaact caaggatttt tgcaacattg cagataacca tgaaatcatt ttgcgtacta 120
cacttagtgg tgaggtacgg ctgcatagtc atggcatgtt taaccatgag ttgggtcttt 180
attttgctga ataagaacaa agtgggtata caagctacca atcttcaga atttacacca 240
acggtcgag 249

```

<210> 552

<211> 341

<212> DNA

<213> Mus musculus

<400> 552

```

gaattcggcc aaagaggcct aagaagaaca aaggacccaa gaaaatgcc aaatccaaaa 60
aaaagaagcc tttaaaaaag aaaccacaa ctgtaccctt acctcaggca aagcagcaga 120
agcaaaagca agcaaatgga gttgttgga gtgaagctgc aataaaggag gaagaagacg 180
acatttctga caagggcagt gattctgaag aggaagaaac caatagagat tctcagagt 240
agaagaaga tggtagtac agggagtctg atagagagca agatgagaaa caaagcaag 300
atgatgaagc agagtggcga gattacaac agagagtcca g 341

```

<210> 553

<211> 580

<212> DNA

<213> Mus musculus

<400> 553

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gaattcggcc aaagaggcct agaaccacaa gactatgaat gaaaaggctt ggaaacgctg 60
gtgtacacag atcctctctg ccctaagcta cctgcactcc tgtgacctc ccatcatcca 120
tggaacctg acctgtgaca ccatcttcat ccagcacaac ggactcatca agattggctc 180
tgtggtcct gacactatca acaatcacgt gaagacttgc cgggaagaac agaagaacct 240
acactttttt gcaccagagt atggagaagt cacaaacgtg acaacagcag tggacatcta 300
ctcctttggc atgtgtgcac tggagatggc agtgcaggag attcagggca atggcgagtc 360
ctcatatgtg ccacaggaag ccatcagcag tgccatccag ctactagaag actcattaca 420
gagggagttt attcaaaagt gcctgcagtc tgagcctgct cggagaccaa cagccagaga 480
acttctgttc caccagcac tgtttgaagt gccctcactc aagcttcttg ctgctcactg 540
tategtggg caccaacaca tgatcccaga gaacgtcgag 580

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<210> 554

<211> 372

<212> DNA

<213> Mus musculus

<400> 554

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gaattcggcc aaagaggcct acagatagct ccaagttaca taggcggccc agcaaactca 60
gtccattagt gctgtgaaaa gaagttcctt actccttgga ttcaccggtc agagcaaaaa 120
acgcagttac cactgaagta aagccgaaca aacttctaca ctgatctcag agagcaaggg 180
caaggacgca cgttcacgga ctgccttttt tcaacagaca acaaagacac tgtggtagaa 240
tttcatttca aaatgaaggc tttgttttg accctaagtg tactactctt cctactgggc 300

```

agtggtcatt gcaaaggagg acaactcaaa ataaaaaaaa taacccaaag gagatatccc 360
cgtggagtcg ag 372

<210> 555
<211> 302
<212> DNA
<213> Mus musculus

<400> 555
gaattcggcc aaagaggcct aggctgagga actgctgtgg agaaaggat actatgaagt 60
tatccaactt atcaagacta acaaaaagca catccacagt cggagcacct tggaatgtgc 120
ctacaggact catctggtcg ctggcattgg cttctaccag catctccttc tctatatcca 180
gtcccactac cagctggaac tacagtgtcg catcgactgg actcacgtca ccgatcccct 240
catgggattc aagaagccag tatctgcttc aggaaggagg atggattggg caaacctgcg 300
ag 302

<210> 556
<211> 284
<212> DNA
<213> Mus musculus

<400> 556
gaattcggcc aaagaggcct agtggaaactc atttttgttg ttgttgttga agataaggca 60
attttaactt ttttttaaaa aaaaactttt tctgcttctg tggaaactcat ttttgttgtt 120
gttgttgttg tttccaaaaa gttatggtgc tgtatagggtg ctttctgttg agcctgcaga 180
gtgtgagtg aggtggtact ctctttggtg gacagcgtag ttgggaacac ctttgggtaca 240
tacaaaactg gtgtggcgat gctctgacta gcacagctgt cgag 284

<210> 557
<211> 665
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (605)

<400> 557
gaattcggcc aaagaggcct agcccagctc tgcacccaat catgaagctc cggaaagctt 60
ggctgttggc cctgctcttg gcgctgacac agctgctggc tgctgcgagc gccggagatg 120
cacagggaaga tacttcagat acagaaaatg ccactgagga ggaagaggaa gaggatgacg 180
atgacttggg agttaaggaa gaaaatgggtg tttgggtctt aaatgatggg aactttgata 240
actttgtggc tgacaaagat acagtgtctac tggagttcta tgcaccatgg tgtggacact 300
gcaagcagtt tgctccagaa tatgagaaaa ttgccagtac tttgaaggat aatgatcctc 360
ccattgctgt agcgaagatc gatgcaacct cagcatccat gctagccagc aaatttgatg 420
tgagtggcta cccaccatc aagatcctga agaagggaca ggccgttgac tatgatggct 480
ccaggaccca ggaagaaatt gttgccaaag tcagagaagt tccccagcct gattggacac 540
ctccacctga agtcactctt tcattgacta aagataactt tgacgatgat gtcgactgtg 600
tctanacaaa ggggtggtggg acgtcaggaa gagctcccca tggattcatg tgcacccatc 660
tgag 665

<210> 558
<211> 536
<212> DNA
<213> Mus musculus

<400> 558
gaattcgaaa gaggcctagg gagggcggag gaagcggact gttccggagc tctgcctagc 60
cgggcccaac ctttgcctca gagatcatgg ctgtcgagga tgtggtggcg actggcgccg 120
acccgagcga gctagagggc ggcgggctgc tgcacgagat tttcacgtct cctctcaacc 180

tgctcctcct gggcctctgc atcttcctgc tctacaagat cgttcgcggg gaccagcccg 240
 gtgccagtgg cgacaacgac gacgacgaac caccctcgct gcccgcctc aagcggcgcg 300
 acttcacccc tgccgagctg aggcgtttcg atggcgctcca ggaccgcgcg attctcatgg 360
 ccatcaacgg caaggtgttc gacgtgacca aaggccgcaa gttctacggg cctgaggggc 420
 catatggggg ctttgccgga agagatgcat ccaggggcct tgccacattt tgccctggaca 480
 aagaagcact gaaggatgag tatgacgacc tttctgacct caccctcata gtcgag 536

<210> 559

<211> 229

<212> DNA

<213> Mus musculus

<400> 559

gaattcggcc aaagaggcct aggagacttc tatacattct ttcttgtaa gaagattact 60
 tggtcaagat attccataaa aagcaactgg aataaacttc acgtaacaga gactaagacg 120
 gtgggtactg atgatcgtaa ccgctggggc agttggcgct ttactagtgt atggtgtgaa 180
 gacatgccag attgaaaact caaaacaaaa cacgggcaca actgtcgag 229

<210> 560

<211> 277

<212> DNA

<213> Mus musculus

<400> 560

gaattcggcc aaagaggcct atccagagtg attttctcta gctacagtct gtgcgcccct 60
 tcaatccttc ttttagtcgt tagcttttgc gatgttttct tgccattttt gtttcttctt 120
 ttgctccttc tctctggctt caatcatctt ggccaacttc caggacagta cagcactagc 180
 taggaacagt ggtgtgagcg ccaagataac tgtggttaagg aagccatatt ggtcctttgc 240
 agcccactcc acaacatact cagcccaagc tgtcgag 277

<210> 561

<211> 308

<212> DNA

<213> Mus musculus

<400> 561

gaattcggcc aaagaggcct aagcgctaag cctggagtgt gggcactgca gtttcagagg 60
 caccgattat gagaatgtgc agctccacat gggctccatt catcctgagt tctgtgatga 120
 tatggatgcc gggggcctgg gcaagctcat cttttaccag aagagtgcaa agctcttcca 180
 ttgccataag tgcttcttca ccagcaagct gtacgccaat gtgtactatc acatcacggc 240
 cagacacgca gcctcggaca agtggagtga gcagccgaaa gagcagccga gcaaagacac 300
 ccgtcgag 308

<210> 562

<211> 558

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (23)

<220>

<221> unsure

<222> (26)

<400> 562

gaattcggcc aaagaggcct agnagnagat ttactggaaa ttaagaactt gctgctgtta 60
 aataaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
 aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180

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ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatattca 240
gttctgtgta ctctagagtt tgacgggtctg tatatttttc aggcagccaa gccaagttat 300
tgtatcattt ggggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaagggt 360
ttaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgattt ttcacaactg cttccttttc tatggctcct ggttcatatc 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag                                     558

```

<210> 563

<211> 263

<212> DNA

<213> Mus musculus

<400> 563

```

gaattcggcc aaagaggcct atagagagtg atagtgcata acccagaatg gatgtcctct 60
ttatagccct ccttgcttga ccactcatcc tgggacagga atacgacct gaagagcagc 120
tggaagaggg tgattactat caagtggcat attattatta cacagtgacc cctaattatg 180
atgacttcag tgtaaaactc actgttgatt actccgtgtt tgagtcagag gataggttga 240
acaggttgaa caaggaggtc gag                                     263

```

<210> 564

<211> 537

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (434) .. (435)

<400> 564

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gaattcggcc aaagaggcct aatttgacaa gattcatttc acaagggtgc tcaactctgag 60
gacatgcagt ttggcttctc ctacttttat tacctcatga gtgcagttca gccctcaat 120
atttcccaag tctttcatga agtagacaca gaccaatctg gtgtcttgtc tgatagggaa 180
atccgaacac tggccacgag aattcacgac ctacttttaa gcttgacagga tttgacaggt 240
ttggaacaca tgtaataaaa ttgctcaaaa atgctccccg ctaatatcac tcaactcaac 300
aacatcccac cgactcagga agcatactac gacccaacc tgcctccggt cactaagagt 360
cttgtcacca actgtaagcc agtaactgac aagatccaca aagcctataa agacaagaac 420
aaatcacagg ttgmnatcat gggagaggaa gaaatcgctt tcaagatgat acgaaccaat 480
gtttctcatg ttggttgcca gttggatgac atcagaaaaa accccaggac agtcgag 537

```

<210> 565

<211> 418

<212> DNA

<213> Mus musculus

<400> 565

```

gaattcggcc aaagaggcct aggggaagtgc gaaatcaaag ttgcgcaacc caaagagggtg 60
tacaggcagc agcagcaaca acagaaagga ggcagagggg ctgcagccgg cggaagagga 120
ggtgctaggg ggcgtggaag aggtcagggc caaaactgga accaaggatt taataactat 180
tatgatcaag gatattgaaa ttataatagt gcctatgggt gtgatcagaa ctatagtggc 240
tatggcggct atgattatac tgggtataac tatgggaact atggatatgg acagggatat 300
gcagactaca gcggtcagca gagcacttac ggcaaggcgt cccgaggggg cggcaatcac 360
cagaacaatt accagcccta ctaaaggagg acgctgggag agcagcgggt aagtcgag 418

```

<210> 566

<211> 420

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (268)

<400> 566

```

gaattcggcc aaagaggcct agtggatgga gcagtcacag tgattactat gcaaattatt 60
actctggcca gtatgattat ggagacccca gccgctggga tcgttactat gggctctgcc 120
ttagggatcc tcgcacctgg gaccggaggt actggtatga ctctgaacat gaccataca 180
ggaaggacca ctatgcttac agtgacaggc ctgagaaatg tgatgatcac tggaggatat 240
accctcgctt cactgggagc ttcgacgntg acgctgagat ccacagggac ccctatggag 300
aagaagcaga cagacgcagc atccacagtg agcactcggc acggagcctg cgcagcactc 360
acagtctgcc cagccgcgcg agcagcctca gctccattc acaccagagt cggggctcgag 420

```

<210> 567

<211> 385

<212> DNA

<213> Mus musculus

<400> 567

```

gaattcggcc aaagaggcct agaaaatgaa aaactcacag aaacctcaga agatagattc 60
agaaataagt cccaagaagg ataatagaaga atttctacaa aataaaaaaa agaaaagggg 120
taccactgac cttagtgtag aagctttgcc caaaggaaag ctaaggacca aagattccag 180
tacctctgaa atggtgaaat cttcaacaat gagttcttct aaggcaaaga gagaaaagca 240
atcagtgggt ccagtcataa tggcaaaaga caatgatggt aaaatgcctg acgaagatgc 300
cctggaggag gattcagata gtgctagtga gctaggaagt gatgaggaat ctgaagatga 360
aatcataagt gatggtatcg tcgag 385

```

<210> 568

<211> 282

<212> DNA

<213> Mus musculus

<400> 568

```

gaattcggcc aaagaggcct actagacctg cgtcgacgga gctgatttgc cattggtgcc 60
agtctcaaac cccgaagcca cgatttgctt tatttttcac tgtttggtct gatctattcc 120
catcctgag acagagcccc tgccttaaag actggttttg taatgacaga cgtctccggc 180
actcagaatc actttaattt catagagtgt ggttttttat ttttgtttt tttttttccc 240
aagtgcacag aagggtctgt cacaccacc agactagtgc ag 282

```

<210> 569

<211> 329

<212> DNA

<213> Mus musculus

<400> 569

```

gaattcggcc aaagaggcct aaaacctcat gagtgttttg ccactgaata catccattgt 60
gggttttggt tgaatggtgc ttaaaaacca tccctgagca gaggggaagc tgttaaaactg 120
tcagtcaaag cagtttggga aataaaagag actgggccct gggtcattct actagataac 180
actttgtaaa aattggttct gaaaaccctg tttatttgca tatttgtaga aacctgtat 240
atgtggttgt tttgtgagtg tgcctaaaag tgggttgacc agggcaagat cgctcattgg 300
aacagctgtg tggaaatggg aaagtcgag 329

```

<210> 570

<211> 280

<212> DNA

<213> Mus musculus

<400> 570

```

gaattcggcc aaagaggcct atctgtgtct gtggacctga atgttgacct atcgcttcag 60
atcgacatac ctgatgcact cagttagaga gataaggtca agtttacagt gcacaccaag 120
accacactgt ccacatttca gagccagag tttctgttta caaggcaaca tgaagacttt 180

```

gtgtggctgc atgacactct tactgaaaca acggattatg ctggccttat tatccctcct 240
gctcctacaa agccagactt tgatggccac gagagtcgag 280

<210> 571
<211> 291
<212> DNA
<213> Mus musculus

<400> 571
gaattcggcc aaagaggcct aaaaaaaagg ttttattttt ccttcttctgt agtaagtgc 60
ctagttctgg gtgtcttcac tgccttgccc tggaaactgtg tttagaagag agtagcttgc 120
cctacaatgt ctacactggc cgctgagttc cctgcgcact gcacctcact gtttgtaaat 180
gctgtgatta ggttccctta tggcaggaag gctttttttt tctttttttt ttttcttttc 240
tttttttttt ttttaagga aaaccagtc aatcatgatg ccacagtcga g 291

<210> 572
<211> 234
<212> DNA
<213> Mus musculus

<400> 572
gaattcggcc aaagaggcct aatactttat aaataaaaaa aaaaaaaaaa aaaaagaaaa 60
gtgaaatata tatatatatc cccagtaatg atagataagt taccacccag gctctgtttt 120
ttgtttgttt ggctttttgt tttgttttgt tttcttcccc tttccccca atcagaacag 180
acacagttgg tggggacagt aatgtgtgga gtcttgaaac caggaagcgt cgag 234

<210> 573
<211> 273
<212> DNA
<213> Mus musculus

<400> 573
gaattcggcc aaagaggcct aagcatttat ttaagtggag aattaattag ttttgatttc 60
cctattttac aaaaattgat aaagatatag ttcattggatt ttattctgct gttatgggtt 120
tatttctatg ggtctgaaag cataacatgc tcttccatgg ttttccccctc tcggaccag 180
ccctggcttg gcaggcctct tccacagtt aacagtgttg atctctgcta ctcaaccagt 240
ccttctagga atgaatctcc catcagagtc gag 273

<210> 574
<211> 251
<212> DNA
<213> Mus musculus

<400> 574
gaattcggcc aaagaggcct aaagaagata accacatcaa gatggttggg aagctgaagc 60
agaacttact cttggcgtgt ctggtgatta gttctgtgac cgtgttttac ctgggccagc 120
atgccatgga gtgccatcac cgaatagagg aacgtagcca gccagcccga ctggagaacc 180
ccaaggcgac tgtgcgagct ggcctcgaca tcaaagccaa caaaacattc acctatcaca 240
aagaagtcga g 251

<210> 575
<211> 300
<212> DNA
<213> Mus musculus

<400> 575
gaattcggcc aaagaaccat ggttgggtggg gtcattgatcc ccaatgtgga aaccatcctt 60
ggcttcacag gagcaacgat ggggagcctc atctgcttta tctgcccgc tctgatctat 120
aagaaagccc acaagaatgc cccctcagcc caggtgggtgc tctgggtcgg cctgggcac 180
ctcgtgttca gcacactcac caccctctct gtgaccgaag aagctcctct ggacttgacg 240

caagaagctc gcagcgccca ccgaggagat gctgagggcg caatgaaggt gaaagtcgag 300

<210> 576

<211> 353

<212> DNA

<213> Mus musculus

<400> 576

gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
cgatcctgct gctggcgctg gtcgctgccca gccaggcgga gccctgcac ttcaaggact 120
gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
gtcagctgca caaaggccag tctacagtgc tcaacatcac ctttaccagc ggcactcagt 240
cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcccta 300
ttcctgagcc tgacggttgt aagagtggaa tcaactgccc cagtacagtc gag 353

<210> 577

<211> 292

<212> DNA

<213> Mus musculus

<400> 577

gaattcggcc aaagaggcct aaaagaagga accgtgaaca ttttagacac ccttttcttt 60
ggggtaggct ctgccccagg cgccgtctcc ttccccccc caaacactaa tgcatttccc 120
taacctagtc acctcgctcc taaaggcttt cctacccag ccaaactctcc aaaagtgagt 180
caaggggcta aaaaacaagg ctggcctcat ttgctggacc aaatctacag ggagaacccc 240
tgagtgaggt tgtccaggga attgtcccct ggtgagggaa gcaggggtcg ag 292

<210> 578

<211> 351

<212> DNA

<213> Mus musculus

<400> 578

gaattcggcc aaagaggcct agaaaacaaa aaagaacaag caggagatag cgtttgtcct 60
ccctaaccac acagcatcat ctcaccggct cgtgggactt gacgtgaatt ctgtgggtta 120
atgcaccagg cttactagtgc tccattttca tccaagatcc ttactctcta acgttcttgg 180
tctattgaa gcatttcagt atctaagcat actgcaatgt taatacccaa gagaaaagcc 240
attacgtacg tattctgggc acacgatcgg tgtggcacgg ttttatttgt tactgttgtt 300
gttttatttt gttgtttctg ttttttaaat aaactatcac acccagtcga g 351

<210> 579

<211> 281

<212> DNA

<213> Mus musculus

<400> 579

gaattcggcc aaagaggcct acaaaggaca gccctgtctg cacactgagt tactgtggat 60
ttttaagaaa cttcgctaaa gaatttaggc atttctgatt cagttaaagg attgccaatt 120
catcagtcce tgaaactaga gcaatctcaa caggacaaga aaagaaaatg ggctttttta 180
gtccaatata tgctcttttc ttctgttttg gagttagagt atactgcaa tatgaagctt 240
accgatggga tgacgattat gaccaagagc aaaatgtcga g 281

<210> 580

<211> 317

<212> DNA

<213> Mus musculus

<400> 580

gaattcggcc aaagaggcct aggaaagcaa aggaggatag taccaagcaa gtgtctattc 60
gcagaaatca aagagaggaa accggcgtct caatgtctca gaaagtgaga gaagctggga 120

gagacgtcag ctacttgata gtggtgctct ttggagtcgg ccttacaggc ggcttggtat 180
 acgcgatctt caaagaactg tttttttcgt ccagccctaa tatcatatat gggaaagcct 240
 taggaaaatg cagaacacac cctgaggtga ttggtgtatt tggtagcct ttgaaaggct 300
 acggggaaag agtcgag 317

<210> 581

<211> 397

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (272)

<400> 581

gaattcggcc aaagaggcct aagtttcggt tttgttttgt tttgttttgt tttgttttgt 60
 tttgttttgt taaggaaatca gatagccaga aaaaaaatg ctattgcttg ttttcatgaa 120
 cttcagttgt ctcttttttag taaaccagct actttccaca aagtcttctc tgaccttccc 180
 catcactgga cggttcaccc atcttcttct ccaagtgttt atcccccagc ccaagccttt 240
 cctgctgcaa gccaaagcctg ctacatttgt tncagaccaa gcttatacac agctcgacaa 300
 ctgcaactccc actgtaggct cgggtgtgta ctcttgtctt gtgttgggaa ggggaagtga 360
 agtgataagc cagaattttt ttcaggaggt tgcgag 397

<210> 582

<211> 282

<212> DNA

<213> Mus musculus

<400> 582

gaattcggcc aaagaggcct agggcagacg gtgaaactca agtattgctt cacctgtaag 60
 atgtttcggc ctccccggac ctgcactgc agtgtctgcg acaactgtgt ggaacgggtt 120
 gaccatcact gcccttgggt gggcaactgt gtggggagac ggaactaccg cttcttttat 180
 gcgtttatc tctccctctc cttcttgacg gccttcactt tcgctcgct gggtaccac 240
 ctgaccttc tttctcaagg aagcaacttc ctctccgctg ag 282

<210> 583

<211> 246

<212> DNA

<213> Mus musculus

<400> 583

gaattcggcc aaagaggcct agcaaagtat ccagagatca agtccttgat gaaacctgac 60
 cacaatctga tctggattgt agccatgatg cttctcgtcc agctggcttc attttactta 120
 gtcaaagatt tggactggaa atgggtcata ttttggctct atgtcttttg cagctgcctt 180
 aacctctcca tgactctggc tatccatgag atttccacaca atttcccctt tggccacctt 240
 gtcgag 246

<210> 584

<211> 539

<212> DNA

<213> Mus musculus

<400> 584

gaattcggcc aaagaggcct cggcggtgta gccagcaaag cgcacccgga gccccggctc 60
 tcttcggcca gatgtttgaa cccaagagct gcacctatac ctacctctg ggtgaccggg 120
 agtcaagaga ggcagttctg atcgaccccg ttctggagac agcgcacccg gatgctcagt 180
 tgattaagga gctggggctc aagctgttgt acgtgtgaa cactcactgc catgctgacc 240
 acatcaccgg caggggggtt ctccggctcc tgcctccggg ctgccagtct gtcactctcc 300
 gcctcagcgg agcccaggct gatttgcata tcggggaagg tgattccatc cgctttggac 360
 gctttgcttt ggagactcga gccagccctg gccacactcc aggctgtgtc acctttgtcc 420

tgaacgacca gagcatggcc ttacttgag atgccctgct gatccgaggg tgtggacgga 480
cagacttcca acaaggctgt gctaagactt tgtaccactc tgtgcacgag acagtcgag 539

<210> 585

<211> 419

<212> DNA

<213> Mus musculus

<400> 585

gaattcggcc aaagaggcct actggaagat tacgggactt tgaagtaaaa gatctactta 60
gtctaactca gttcttttggc tttgacacgg agacattttc cctagctgtg aatttactgg 120
acagattctt gtctaaaatg aaggtagagg cgaagcatct tgggtgtgtt ggactgagct 180
gcttttattt ggctgtgaaa gcgactgaag aggaaaggaa tgtccactg gcgactgatt 240
tgatccgaat aagtcagtat aggttcacgg ttccagacct gatgagaatg gagaaggctc 300
aggttctccc tatagttagt cgtattaatt tcagaggagt atttagaaga gaagctgaag 360
ctgtcgagac aaacgaaact agtgatagac ctttgggtcc acttcacaac caacaagg 419

<210> 586

<211> 350

<212> DNA

<213> Mus musculus

<400> 586

gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcttctgctt ggcgctggc gctgccagcc aggcggagcc cctgcacttc aaggactgct 120
gctctaaggt gggagttata aaggaggtga atgtgagccc atgtccacc gatccctgtc 180
agctgcacaa aggccagtc tacagtgtca acatcacctt taccagcggc actcagtcct 240
agaacagcac ggcttggct caccgcatcc tgggaaggat ccgggtcccc ttccctattc 300
ctgagcctga cggttgtaag agtggatca actgccccat caatgtcgag 350

<210> 587

<211> 278

<212> DNA

<213> Mus musculus

<400> 587

gaattcggcc aaagaggcct agcgaaggaa ttttaaggaa cagatcatcc accatgtggc 60
cactatcatt ctctctgct tctcctggtt tgccaattac gtccgggcag ggaccctcat 120
catggctctg catgacgct ctgactacct gctggagtct gccaaagtgt ttaactacgc 180
gggatggaag aacacctgca acaacctctt cattgtgttc gccatcggtt tcatcatcac 240
tcggctgggt atcatgcctt tctggatcct acgtcgag 278

<210> 588

<211> 558

<212> DNA

<213> Mus musculus

<400> 588

gaattcggcc aaagaggcct agaagaagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180
ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatattca 240
gttctgtgta ctctagagtt tgacggactg tatatttttc aggcagccaa gccaaagtat 300
tgatcattt ggggttagaa actgtgtttt cctgtgtata tgtatcaat atccaagggt 360
ctaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgtatt ttcacagctg cttccttttc tatggctcct ggttcatac 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag 558

<210> 589

<211> 249

<212> DNA

<213> Mus musculus

<400> 589

```

gaattcggcc aaagaggcct aaaaagggtta agttttgttt tccactgaag tactatttaa 60
catctcagaa aaaaaccctg catgttctat agttttatat taaaatccat catttcatat 120
gcactgtatc aaaaacaggt tacttgccctg aacatgggtta gtgtactaac aggtctgccc 180
accctaccc tcacccccag cttcatgcca gcatatgtag atttgagttc taacacagca 240
catgtcgag                                     249

```

<210> 590

<211> 340

<212> DNA

<213> Mus musculus

<400> 590

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gaattcggcc caaagaggcc tacgttcac tctggagcat ccgaattgca tcaccgggtca 60
gaaaaaact taccgaaacc tcagacaaag cgtcaaactc cagaggatgc tacgagctct 120
ttggctcttc tggatcttgg tggccataac agtcctcttc agcaaacgct gttctgctca 180
ggagttctctg tcatgtgatg cttctggggg gtgtgatggc cgctccaggt ctttcacctc 240
tattccctcc ggactcacag cagccatgaa aagccttgac ctgtctttca acaagatcac 300
ctacattggc catggtgacc tccgagcgca ttacgtcgag 340

```

<210> 591

<211> 169

<212> DNA

<213> Mus musculus

<400> 591

```

gaattcggcc aaagaggcct agtcgggctg tttctgtgtc atttcttcca tgaaggctctg 60
gtgttctgca atgagggttt tcacctcttc gatctctgg gggataactt ccttatcttt 120
ctcggtcagt gtggtttccg cccactgtag ccatgccagc aaagtcgag 169

```

<210> 592

<211> 447

<212> DNA

<213> Mus musculus

<400> 592

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gaattcggcc aaagaggcct aatgaaggac atcgatcatgc tggtagaccag tctcgggaaa 60
tacatcttcg catctatgct gggccatgac atccacggag gaattgtcct gcctcttctg 120
tattttgtct tcacaaggaa aaacccgttc acgttctctc tgggctcctc caccctattt 180
gagacagctt ttgcgacctg ttccagctca gcaacccttc cgtctatgat gaagtgcatt 240
gaggagaaca atggtgtaga caagaggatc agcagggttc tctctcccat tggggccacg 300
gtcaacatgg acggagcagc catcttccag tgtgtggccg cagtgttcat tgcccagctc 360
aacaacgtag acctgaacgc aggacagatt ttcaccattc tagtgactgc caggcatcc 420
agtgttgag cagcaggtaa tgtcgag 447

```

<210> 593

<211> 430

<212> DNA

<213> Mus musculus

<400> 593

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gaattcggcc aaagaggcct aggtttgaga cagccctgcc agccccggcg cccacttctg 60
ggccctgggc agcaccatcg tccccagctt ctgcttccgg cccagatca gtcagccag 120
ccccagcgtc cagcctggc tcagccccgc acgcctctct tggcgcttcc aggtccagg 180
cagcgctgc ggtccatcca gactccatgg categetacc gcccaactccg gtccctgttg 240
acctcatgct acctctgcgg gtctctactg accgtttggc accgttgcca acctttgcgg 300

```

tcattggacca cactgtgtcc ttgtgaccag ccctgtaggg ctaccacagg acagcactgc 360
 cagcccccac agtctctgct agtccggtgt catcagtgcc ctccgactct caccttgcaa 420
 ccacgtcgag 430

<210> 594
 <211> 259
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (148)

<400> 594
 gaattcggcc aaagaggcct agtttcaagg tctgtcttag ttctcattct caagattggt 60
 tccagttgca agtttagaggc aagccagcta gctgcccgag ctttaactctg ttcagtgtccc 120
 tgttactaac attttttaac agattggntt ctacatgttt aaagtatcca gcgttggatt 180
 ttacctcttg ctagtcccat ttgtccctgg tgctgctttt aaaggtatag ggcctgtga 240
 agtgtccagt aacgtcgag 259

<210> 595
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 595
 gaattcggcc aaagaggcct acctttgacc tctgaaaaaa cctatatagt ttctcctaca 60
 gacaccttgc cagtaacctt acaggtctta taggagagca gatccaagtt gccaggctga 120
 tctgcaagca caaacatttg tcaagggaaa gcacaggctg ttactttcag tacaaaatgg 180
 ttctttgcta tggatggatt ctcttcttct tgcccatgt cctgttccca aggaccgact 240
 tctgcaagca ctgtggtgga ctcttctatg aggagacaac atctgggcct tattcaatag 300
 cctgtggcgg ggtcgag 317

<210> 596
 <211> 271
 <212> DNA
 <213> Mus musculus

<400> 596
 gaattcggcc aaagaggcct acttggtatc ctttagtttag cttagctctg tctcttgttt 60
 cataaaacac actgggttag aatagaggct cctgcattac atggtttctg tcaactgtttt 120
 ttgttgggtt ttcttttttg tttttcgaga cagggtttct ctgtatagcc ctggctgtcc 180
 tagaactcac tctgttagacc aggtggcct cgaactcaga aatctgcccg cttctgcctc 240
 ccaagtgtctg ggattaaagg caagagtcga g 271

<210> 597
 <211> 338
 <212> DNA
 <213> Mus musculus

<400> 597
 gaattcggcc aaagaggcct agcatgttca gtatcaacc cctggagaac ctgaagctgt 60
 acatcagcag ccggccgccc ttggtggttt ttatgatcag tgtcagcgcc atggccatcg 120
 ccttctcac cctgggctac ttcttcaaga tcaaggagat taagtccca gaaatggctg 180
 aggaattggaa tacttttctg ctccggttta atgatttga cttgtgtgta tcagaaaacg 240
 agacactgaa gcattctctc aacgatacca ccacaccaga gagcaccatg accgtcgggc 300
 aggccagatc gtctaccag ccgccccagt ccgtcgag 338

<210> 598
 <211> 304

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (161)

<400> 598

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gaattcggcc aaagaggcta caactttctg ctcaacacta cagactacag aatcctgctc 60
aaggatgagg accatgaccg catgtatgtg ggcagcaagg actacgtgct gtccctggac 120
ctgcatgaca tcaaccgaga gcccttata tcattgggca nctccccgc agcgattga 180
gagtgcatac tgtcaggcaa ggatggcaat ggagagtgtg gtaacttcgt ccggctcatc 240
cagccttggg accgaacaca cctgtatgtg tgtgggaccg gtgcctacaa cccacgcgt 300
cgag 304

```

<210> 599

<211> 169

<212> DNA

<213> Mus musculus

<400> 599

```

gaattcggcc aaagaggcct aggagaaaaa actaaaggag tacatgcgca tgatggggct 60
taacagctgg ctacactgga gcgcttggtt cctcatgttc ttcctattct tcctcatcgt 120
ggtctccttc atgacgctcc tgttctgtgt caaagtgaag acggtcgag 169

```

<210> 600

<211> 326

<212> DNA

<213> Mus musculus

<400> 600

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gaattcggcc aaagaggcct actgtatttt taataacaac aacattagta gcccttctga 60
aaaaagaaaa cagagaagcg tcaatagtaa aagaagagac ccaagggatc acagacactt 120
acaagctgct attctcaatt ataaaaatgc cagcagttct ggccttttgc cttctgattc 180
taacgtcaaa gattggcttc tcagcagctg atgctgtgac aggcctgaag ctggtggaag 240
aaggggtgcc taaagagcac ctggccttac tagctgtccc aatggctcct ctgcagataa 300
tcctgccact cctcgtgcaa gtcgag 326

```

<210> 601

<211> 355

<212> DNA

<213> Mus musculus

<400> 601

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gaattcggcc aaagaggcct actgtgaaaa gatgtcgtg tcttccaaag tgtccctccc 60
ccctattcct acagtaagca atatcaaatc tctctccttc cccaaacttg actctgatga 120
cagcaatcag aagacagtca agcttgcgag cactttccat agcacatcct gcctccgaag 180
tggcgcatac cggagtctcc taaagccttc caccctaaagc agtgccagtg agctcaatgg 240
ggaccacact tctgggcttt cagctttgaa cttgaacagt ggcacagagg tgccaacact 300
gacatcctcc cagatgcctt ccctgtctag cgtgtctgtg tgtacagaag tcgag 355

```

<210> 602

<211> 371

<212> DNA

<213> Mus musculus

<400> 602

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gaattcggcc aaagaggcct aagtaaagaa actgttagaa agcagatacc atcaaatagg 60
ttctgggaag tgcgaaatca aagttgcgca acccaagag gtgtacaggc agcagcagca 120
acaacagaaa ggaggcagag gggctgcagc cggcggaaga ggaggtgcta gggggcgtgg 180

```

aagaggtcag ggccaaaact ggaaccaagg atttaataac tattatgac aaggatatgg 240
 aaattataat agtgccatag gtggtgatca gaactatagt ggctatggcg gctatgatta 300
 tactgggtat aactatggga actatggata tggacagga tatgcagact acagcggcca 360
 gcagagtcga g 371

<210> 603
 <211> 529
 <212> DNA
 <213> Mus musculus

<400> 603
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 tgctgtagca ttctttttaa aaatgtgcc taaacagtct atagtaaaat tgagagacaa 120
 aaatagaagc ctgtctttac cctaaaatag aataaacttc ttaagaaggc cagggaaggc 180
 ttaccacggc ttggtagagg aagaaaaact tgttttcata aatatttgct ttgtgaagac 240
 acggtgaaga taattgttca gggccaggat gtacccctaat agagagtgcg tgcattggcat 300
 atttaaggcc ctacgttatc cctagcctga caaaaagggt ttcttcctaa tctctaaagt 360
 caagttgaaa gcttttatta attctatgtg taatagagtt ttaaaataag ttatatcca 420
 gttttttcag cagtgaactc ctaagtcaaa cctatcaaat ccttgtaatg aacctgtaac 480
 cattcgtctt ttataatga gattttctta aatttggaag gaggtcgag 529

<210> 604
 <211> 263
 <212> DNA
 <213> Mus musculus

<400> 604
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 tggatcttct tcaagagcag gacttgctct cagctgctaa gtcattctcca gccccattt 180
 gtttgtttgg agagcaggtc tcaactctgtg gtccaggctg gtttggaaact cactttgtag 240
 cacacgttgt cctcacagtc gag 263

<210> 605
 <211> 241
 <212> DNA
 <213> Mus musculus

<400> 605
 gaattcggcc aaagaggcct agtctggcat ggtacttga gtgggtgctg gcgtgttctt 60
 cctcgctctg atctgggtgc tgggtgctgt gctgtgtgtg ctgttateca gagcctcttg 120
 gatagctagg ttctccatcg tctttgtctt cctcggagct ctgatcatta ctacagttct 180
 attgcttttc cctcgagcca gtgaattccc agcccagaa ggagaaataa agcttgtcga 240
 g 241

<210> 606
 <211> 279
 <212> DNA
 <213> Mus musculus

<400> 606
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 aacaatccaa agtctctgca gatgatcgtt gcaaagttct tattagctct ctgcaggatt 120
 gccttcatgg aatcgagtc aagtcctatg ggtctggatc cagacgtgaa cgatcaagag 180
 aacgggacca tagtagatca cgggaaaaga gtcgtcgcca taaatctcgg agtagagatc 240
 gccacgatga ctattacaga gagagaagca gaggtcgag 279

<210> 607
 <211> 276
 <212> DNA

<213> Mus musculus

<400> 607

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gaattcggcc aaagaggcct agtgaaatct ttagtctaca tgttggcagc caccttgctt 60
ggcctgggtt tgcacccaat ttctgggcat tttatagccg aacattacat gttcttgaag 120
ggacacgaaa cctactccta ttatgggcct ctgaacttgc tcaccttcaa tgtgggctat 180
cataacgagc accatgactt cccaacgtt cctgggaaaa acctgcccat ggtgaggaag 240
atcgcaagtg agtactacga tgacctccca gtcgag 276
```

<210> 608

<211> 332

<212> DNA

<213> Mus musculus

<400> 608

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gaattcggcc aaagaggcct aacatttact taaaggagaa aagaaagggg gtcgcagaaa 60
tggctggggc aattatagaa aacatgagta ccaagaagct ctgcattgtt ggagggattc 120
ttctgggttt ccaaatcggt gcctttctgg tgggaggctt gatcgctcca gcaccacaa 180
cagcagtagc ctacacggca ataaaatgtg tggatgtccg taagaaccac cataaaacaa 240
gatggctggc gccttgggga cctaacaagt gtgacaagat ccgtgacatc gaggaagcaa 300
ttccaaggga aattgaagca aatgacgtcg ag 332
```

<210> 609

<211> 308

<212> DNA

<213> Mus musculus

<400> 609

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gaattcggcc aaagaggcct acctttcttt cctcccttcc tccctccatg tccctctctc 60
ctccctccca cctctcacc ttctccatcc ctccctccctc tttcttttgg tactttccag 120
ctggagcagc agcagcagct gggcctgaat caatgattga ctccccacg acctccccctt 180
ctcttttgcc aatgatatct ctttgcctt ccagtcattc ttttaatttta tegtgtatgg 240
ttttgcttct ccttccctct cctctctctc tccctcttcc tccccctct cccccaccga 300
cagtcgag 308
```

<210> 610

<211> 310

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (122)

<220>

<221> unsure

<222> (125)..(127)

<220>

<221> unsure

<222> (259)

<400> 610

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gaattcggcc aaagaggcct aggggtgtgt gtgtgtgtgt gtgtgtgtat ggcttattct 60
cccaatgaaa tacatatata tatatatgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtatg 120
tncnnnccct aagttgcatt ctgtcacaa aacaaagaac atggatttcc aacataatga 180
tgcagatata aaaaaaggaa aggaagagag gggggaggga gggagtgaga aaaggaggga 240
gggaggaagg gagggaggna gggaggagag gagggaggga gggaggagag gaggaaggga 300
ggaagtcgag 310
```


<210> 611
 <211> 326
 <212> DNA
 <213> Mus musculus

<400> 611
 gaattcggcc aaagaggcct aaggagatga gagagggatt gtgagtagtg gagtaaacca 60
 tttggaatct ggtgaaatgg atgacccagg tgtgcagcag cagagtcac gcagggcatg 120
 cagtagcaca gctgtggtgg catgtgcccc tgtgaacatt aacataacag ggctatacat 180
 ctgccagcag ctgaggctag acagccaact tggactttat gggccattcc tctacaggct 240
 caccactcat cccatggcca aggcagcttt cctttctgtg ttttctgtgt cctcagcctc 300
 cacctttctg ccacccacga gtcgag 326

<210> 612
 <211> 278
 <212> DNA
 <213> Mus musculus

<400> 612
 gaattcggcc aaagaggcct aagagattca ggacctgcag agtcgccaga agcatgaaat 60
 tgaatctttg tataactaac tgggcaaggt tccccctgct gtcattattc cccagctgc 120
 tcctctgtcg gggagaagaa ggagaccac taaaagcaaa ggcagcaagt ctagtcgcag 180
 cagctcattg ggcaataaaa gccacagct ttcaggcaac ctgtctggtc agagtggaaac 240
 ttcagcttta ccccccaac agaccctcca cagtcgag 278

<210> 613
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 613
 ggcaagaact attcttatgc agtcaagttt accacaggct cagctggctt caatatggaa 60
 tctttctgac attgatcaag atggaaaact tacagcagag gaatttatcc tggcaatgca 120
 cctcattgat gtagctatgt ctggccaacc actgccacct gtctgcctc cagaatacat 180
 tcacactct tttagaagag ttcgatctgg cagtgggtata tctgtcataa gctcaacac 240
 ttagatcag aggcctaccag aggaaccagt tttagaagat gaacaacaac aattagaaaa 300
 gaaattacct gtaacgtttg aagataagaa gcgggaggca ctcgag 346

<210> 614
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 614
 gaattcggcc ttcattggcct agaattggtct gaactaggcc ccatatttta aaagaaatac 60
 acttattacc tttaaaatca tatatattca cttccaactc aaatggcaaa cgaagcacct 120
 cccactcgaa gccagctga aatattttta aatgtgtgtt aaataaaaaa tttctggccg 180
 ggcgcggtgg ctcttttaag gacttttgct ggggaagggg gcagagaaat aggatagtag 240
 gtggaaggga aagttagatt agcagatttt ttgtttttaa aagataggaa atgtaacatg 300
 tataggctga tgagagtagt ggttaaagag gggaaactgct cgag 344

<210> 615
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 615
 gaattcggcc ttcattggcct agagctggct ttggggtgac gtcggcagga ggggcagagg 60
 ggctctggga aggcctctgc ggtgtgcgg taagtatga gctgggagg ctctgggcca 120
 ggccttgtc ggtgccagg ctgctccac tgcagcttg ttccacatct tcttcagcc 180

```

tcttgccgtc aatgggctct cgggggacag atggccttcc tggggtgtgc ttagaggaga 240
aactgtacga atgaagttag ccgataaatt tgcacgcccc agatccctggg ggcgtaaagt 300
catccataga aatgccactc ttatctgtca cgcctccctc gatggaggaa gtggcgctct 360
catcgccagc atctgtggca gacgcttctg cttttccctg actgectgcc accatgggtg 420
ccagtcctac tcctggagtc cgttccagag cttgctgggc ctgctcctgg ctggcgccct 480
cctgggccgc cctgggtgtg gcttcacctt gcagagcagc ttgcttcaac ctgctgggact 540
ctggccttggc catcggggtt ccactcgag 569

```

<210> 616

<211> 355

<212> DNA

<213> Homo sapiens

<400> 616

```

gaattcggcc ttcatggcct agtttctgcg cccctgcct accccacttc cccctccagt 60
tctcagcttc tctttgaagt ccgagaagtg aggatgcgcc tgtgggtcgc agcgggggag 120
gaaaggggag aagaggggga atgcctccac ctccaaactg ctacattaaa gaaagtttgc 180
aagtccctg aaggacagat acggaagatt ataaaaccag cttctagttt gtctccatgt 240
ggaagtccag ccttctggcc tctcccgac ctcttcagta tctatcctcc taccgagcac 300
ccatctgatg gatctctccc cactgcaacc caccctctc tccaggaggc tcgag 355

```

<210> 617

<211> 514

<212> DNA

<213> Homo sapiens

<400> 617

```

gaattcggcc ttcatggcct agcctcttgc agcttaccgc ctaaaatggt cggggccag 60
agcaaagctt ttatgccttt gaagtgaagg atgcaaaagg aagaactggt tctctggaaa 120
agtataaagg caaagtttca ctagtgttaa acgtggccag tgactgccaa ctcacagaca 180
gaaattactt agggctgaag gaactgcaca aagagtttgg accatccac ttcagcgtgt 240
tggcttttcc ctgcaatcag tttggagaat cggagccccg cccaagcaag gaagtagaat 300
cttttgcaag aaaaaactac ggagtaactt tccccatctt ccacaagatt aagattctag 360
gatctgaagg agaacctgca tttagatttc ttgttgatcc ttcaaagaag gaaccaaggt 420
ggaatttttg gaagtatctt gtcaaccctg aggggtcaagt tgtgaagttc tggaggccag 480
aggagcccat tgaagtcacg aggcctggct cgag 514

```

<210> 618

<211> 433

<212> DNA

<213> Homo sapiens

<400> 618

```

gaattcggcc ttcatggcct agagatcgtc tcatttaggt taaaatgggg agactgaggc 60
ttttaatggg cagcggttgc ctaagattac cctgatttaa cggtagtggt aggtttagtc 120
tctcaacatt tgctctgggc aaagaaagcc cttacctgga caaccatcct ttctggactc 180
caagttaagc ttcttattta tttttttggg cagtcagatg agggaaatggg tagattttgg 240
tgagtctaga ccacagtccg atgaccaacc tttttcaagt gggatccac aaatctgcgc 300
gaccgcccga gcgattggcc tcaccatccg catcgcccag cagggggcgc ccagggggcg 360
catctcagtg cgttagcaaa gggcggaac tgtgcgctct ctggctagtt ctgaagttga 420
aggctatctc gag 433

```

<210> 619

<211> 309

<212> DNA

<213> Homo sapiens

<400> 619

```

gaattcggcc ttcatggcct agttcccgcg tgcctctgtg cgtgtgcacc gccctgtttc 60
ttagaccgta tggtagcctt gtgagaccgg ctgcccgcgt acgtctcctt gcgatggagc 120

```

atatccggac gaccaaggct gaacaagtaa aattacttga ccgattcagt accagcaaca 180
 agtcattaac aggaacactg tatcttacgg ctacacatct attatttatt gactctcatt 240
 aaaaagaaac ctggatatta caccaccata ttgcctcagt agagaaactt gctttgacta 300
 cttctcgag 309

<210> 620

<211> 320

<212> DNA

<213> Homo sapiens

<400> 620

gaattcggcc ttcattggcct acttttctta aagcccttca cccactgaag tcatccttta 60
 tgccagggtg gtaggaagta tgttaaccgt tggtacagta ctcattcacac tatatagctg 120
 ctatttgttt ttctttctgc ctgccagaca aggagctccc taagaactga acctcgtgca 180
 gaagacaaag cttatctggg agtcagcttt agcacagtac tgattgaaga ctacccttag 240
 tacatatgct tgtactctct ctcccttccc tgccctccagc cccaaatgac gcttcaacac 300
 ctaatacccg agatctcgag 320

<210> 621

<211> 696

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (491)

<220>

<221> unsure

<222> (507)

<400> 621

gaattcggcc ttcattggcct aggagatctt tatgaaacca gaccctgggt tctgcaatag 60
 taagataact ggggaagttt tgggtaacta gaggatgaca tactaaaata gcagcatcac 120
 gaagggtgca atgaagtaag atcaagctaa cacgtcgaac tattctgtca acacctctgt 180
 gtcgtccatg tctatagggt gacaatggta aatggatggt ccagcccaga tactctctga 240
 aatgacctgc agctttacag aagtaattct taattcatgc actcatcttt ccccagacc 300
 ccaaagggtg ccattccaaa gtagtgctgt ccagtgcgac tagcatgtgc tacaggccct 360
 gagtggagac ccagcttcgc ctcttttctg gagcaagttt ggcattggtgc taacttctgc 420
 atctgtcatg cagccacact aacaatttcc accttgccca cctgaagatg ttgatgagaa 480
 tatcgaaaaa ngtgtgtgtg tgtgtctgtg gtgtgtgtgt gtgtgtgtgt gcatgttaca 540
 tagtcaaaga tagtcaacta agaacactgg cttgcagctc atttctact atggcattac 600
 attggagaag atgtcataga tttgtgtagt gatgacgagg gtccctgggt gtggcgggaa 660
 cctgggtgag tcctccaagt actggccgta ctcgag 696

<210> 622

<211> 599

<212> DNA

<213> Homo sapiens

<400> 622

gaattcggcc ttcattggcct aggttagggg aagatacatt agtagactga tttcaaccta 60
 acgaaaaaac ttaatttaat gcaatgcctg ggtatgtatc tgtggtatat aaagagtagt 120
 taagtcatc cctgtaacag gtaaatgaaa caagaagaca acaagacgtt gcaaaaactt 180
 gcaagagatg tgtcttacag gaaactagta gattagagaa tatgttttta aatctattat 240
 acctaaatct aaattaggcc atgaaggccg aattcggcct tcatggccta ctgcctcggc 300
 ctcccaaaag gctgcaatta caggcacgag tcaactgcgtc tggccgagag tatgatttta 360
 gaaccagaaa aggacttaat atgtaaatc tgaaggttct ggagatggat ggtggcgatg 420
 gttgcacaac aatgtgagag cactccatgc caccacagtg tgcactgaaa atggtaagat 480
 ttacactctg tgcattttac cccaacaaaa aaagagaaaa atccatccca tcccgctcatt 540

ctcctgggag aggccttcac caggccctgt gtggggcgca ggtctgcgt ggccctcgag 599

<210> 623

<211> 252

<212> DNA

<213> Homo sapiens

<400> 623

gaattcggcc ttcattggcct atagaagctt aaacataagt ggtaagtct tgttgtctag 60
ttcatttcac ctgcctcaac atgctttctt tcattctatt tgcatacaaa atgttcttat 120
ttcagttttg tagacaggat atgagtttagc atactcgtgt ttgttcagct gtccatcctg 180
catcgttact acaatgcctt tttctgccat ttaatgggtgt ttgtatcaat gttcccatat 240
ctgcacctcg ag 252

<210> 624

<211> 281

<212> DNA

<213> Homo sapiens

<400> 624

gaattcggcc ttcattggcct acagcacact gccttgcttc ccattactca caagaatatg 60
tttattttccc attaaggag acctctgcaa cttacagcta acctagtcta tctgaattct 120
tacctttttt tgettcttct ctctctgcc tgttctcccg cttgtccctc tcagtgggtg 180
gcactttcag cctgacacct ggggtcctct tagattctgc aagccaagc agatctccct 240
ctatctacta tgtggagaga atgttatctg aatcactcga g 281

<210> 625

<211> 362

<212> DNA

<213> Homo sapiens

<400> 625

gaattcggcc ttcattggcct accggaggac cccattctgc ccctggtagg cccctggca 60
agtgcgcta cgagtctcta aacggggtct ttctgaetcc gaaactaaca gatcttgact 120
ccagaaaagc gtctctgcctg tcatttatga tatttgtgaa agacctagga acaactgaag 180
ctaacacctg agatactgaa ggcttggaag agtttaggtac ggctgatgac actgttgaaa 240
agtcataaac gcacccaagt tgagcaagaa ctgtgttgcc ccgtgtgtga gaaaaaatag 300
ccacgtccag actgggagaa ttactactt ccaaagacaa gttaatagaa gcggcactcg 360
ag 362

<210> 626

<211> 329

<212> DNA

<213> Homo sapiens

<400> 626

gaattcggcc ttcattggcct aatcgattag ccctcgccgg actcggactg caggaagtga 60
ttgatcggt gtttgggtta ttgattcatt aactacggtg cctccctgac cttctgtctc 120
tcgccagcgc acaagctcac aatccacacc ctctaagag aacctgctct cgccatccgc 180
aggctctcct ggccaatag tggggatata cctgagttga gctagaggat tttatccctg 240
ttgggatggg ggacgtctcg ggaagtgtgg tttctaaact aaaattgaca ccctaacatc 300
acaattaaca gaactagaga gagctcgag 329

<210> 627

<211> 498

<212> DNA

<213> Homo sapiens

<400> 627

gaattcggcc aaagaggcct aggaggggca ggagaacctg caggagatcc tcagcaagca 60

```

gctgcttctg tgtcagttcc tcatggcgct gtccattgtc cggacaggag gccacttcat 120
ctgtaaaacc tttgacctgt tcacaccgtt tagtgtgggg cttgtctacc tgctgtactg 180
ctgctttgaa cgagtttgtc tcttcaagcc tattaccagc cgtcctgcca actcagagag 240
gtatgtgggtg tgcaagggcc tgaaggtggg catagatgat gtccgggatt acctcttcgc 300
agtgaatatt aaactcaate agctgcggaa cacggattcc gacgtcaact tgggtggccc 360
cctggagggtg atcaagggag accatgaatt tactgactac atgatacggc ccaatgagag 420
ccactgtagt ctgcagatca aagctctggc gaaaatccat gcctttgttc aagacacgac 480
taggcctctt tggccgaa 498

```

<210> 628

<211> 541

<212> DNA

<213> Homo sapiens

<400> 628

```

gaattcggcc aaagaggcct aaatatgtga caaccactgt gctgagctat gtatgcttcc 60
cttattcaat ctatgtaaaa attttgggga agtagctgag acttttttat ttccctgaca 120
gagctgggat tcagtgggtg gtttcttgaa aaagctaggc tctttgccta acagcagctt 180
agctcctcaa tttaggggat gaaagcagga atgaaaatgg ccagagtttt cgctcctcag 240
cttgtggagg agcttgagta catgaacctc aactaagccc ctaacatcag gaaggaaaat 300
ggaaaaggaga atttttagac ctttaaagca gagaaattac tgggtgaatca tgtagcacia 360
caggtacctt tagctttttc actgtgatgc tgtatgactt tctaaggtag tcagcatagt 420
ttgtagtaaa tgattcttat tactggaagt gtaagtggag tgttactcac tagttattta 480
aaaaacattt ataaggctat taaaacatca tctggaatta aagcagcata atttaccaca 540
t 541

```

<210> 629

<211> 630

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (186)

<400> 629

```

gaattcggcc aaagaggcct aggttctgaa ggctaggggt gggctaccca tcccatggac 60
cagagtgggg acttgtgggt ccttttctgg gctgcccaca gaccaactgg catgcaccac 120
ctccccgtga aggcccataa aagcctcagg ctcaaccaga gcagggcaga ggaaggagag 180
acatcnggat gaccagctgt agagaggagc taccctctct agggcctcct ctctgctgag 240
agctgcaaac actggaatga cctgcctaca gagagaagcc acctgctcca gggcctctc 300
tctggctgag agcaacagac atcaggacga ccaaaggcag agaggagcca cccactgcag 360
gcctcctctc tgctgagagc tgcagagaca atgggacaac ctggctgacg agaggagcca 420
cccactctag ggcctcctct ctgccgagag tcgaacactc aacaagatga cctgcctaca 480
gagaggaact gccactgca ggtctcctct gagctgctct gacactcagt aaagctcctc 540
ttcatcttgt acactctaca cttgtctgca tacctcaatc ttctggagc caggacaaga 600
actcaggcaa aggtgccaca gggcacagag 630

```

<210> 630

<211> 377

<212> DNA

<213> Homo sapiens

<400> 630

```

gaattcggcc aaagaggcct aatcccagtc atctgttctt caatcccaa taggagaaaa 60
ttcagttttt ttataattga aaatggcacc attcttgagc caggcagtat tgtctgggtg 120
ctaactccac atctcctcag acctccaaaa tagtttctat aggactaaat ttacctctta 180
cagggtgagt gagtcttctt agggagacag agttcaaaat cttgccccct ttgctatttt 240
gaaaaacaac agcacactgt tgcccatcat aataaagagt atttgtagc taatagatgg 300
ttgtactgat ggcttgtttt tcattttttt tgtgtttttt ggtccatcta ttaataaaaa 360

```

tgaaccccggt aactgag

377

<210> 631

<211> 263

<212> DNA

<213> Homo sapiens

<400> 631

```

gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctcgattctc 60
cttccttgac agttgtcatt tacgtgctga agcatattga cttgaggaaa acgccttcct 120
tggagtttgg catgatgac atttttgctt atctgcctta tgggcttgca gaaggaatct 180
cactctcagg catcatggcc atccttttct caggcatcgt gatgtccac tacacgcacc 240
ataacctctc cccgtcactc gag                                     263

```

<210> 632

<211> 144

<212> DNA

<213> Homo sapiens

<400> 632

```

gaattcgcgg cgcgctcgac tggtattatt gttgttttgt cactaattaa aacaatgagg 60
ccccatgcac taggtcatcc tcttctctc ctctttcttt cttacaatga gcttcttacc 120
aaaaggatga tgggacaact cgag                                     144

```

<210> 633

<211> 168

<212> DNA

<213> Homo sapiens

<400> 633

```

gaattcgcgg cgcgctcgac ctaaaccgtc gattgaattc tagacctgcc accgtgcccc 60
gccatgattt gcaaataattt tctcttagtc tgggcttat cttttcattt tcttaacagt 120
gtcttttgca gaggagggtt ttttaatttt aatgaatcca acctcgag                                     168

```

<210> 634

<211> 204

<212> DNA

<213> Homo sapiens

<400> 634

```

gaattcgcgg cgcgctcgac gaaacagact cttccctagg ccctctggag taccatgctt 60
cctggctttc cttccaactc cctgaccacc ttctctcttc tctttgtgac ctccattcc 120
tatgtcatc cttctatat ttgtgatgct caagattcag tccaaggcct ccgttttcct 180
tactttaaaa acggaggact cgag                                     204

```

<210> 635

<211> 556

<212> DNA

<213> Homo sapiens

<400> 635

```

gaattcgcgg cgcgctcgac tagacctgcc tccagtatgg tggagggttt taattttttt 60
aatcatttgt ttgttttgtt ttgtttgtgt gcatgtcttt agctctacgc tcatcgata 120
cattccctga ccagcccta gaatcagaca ttctccaag ggaccctagc ttattttatt 180
ggagaatggc attagaaacc aatatctgaa ttctgggtat tttattacta ctgggtcgcc 240
tttctcaag gccactcag ctgacagagc aacaacatat atgtatctac gctaactgat 300
gtgcacacaa gtgtccataa atacctctag gtatatccat ctctattaaa gtaaatatga 360
gttcatattg atgtttccaa ctgtcaacct gtactacatg gatcattctg gctccctta 420
caccttgac accggtactc tccaactccg acagtgaata acctagctga tgccataagc 480
tatctaattt atttaactgc acaattccag tatatatgta aagtgggttc agaattgcta 540

```

gccegtaccc ctcgag

556

<210> 636

<211> 127

<212> DNA

<213> Homo sapiens

<400> 636

gaattcgcg cgcgctcgac actggaagga aatgagcatt tgtctaagga tcctccctgt 60
 cctctttcag gcccttcctt gcatgatctt catgcccaca acttgggcag gccagcaaaa 120
 cctcgag 127

<210> 637

<211> 255

<212> DNA

<213> Homo sapiens

<400> 637

gaattcgcg cgcgctcgac ggtacattgt gaacttactt tccctcatt atttatgaaa 60
 ttaagcactt ctggtgttgg taatttgtat ttccactttt gtggattacc cacttatact 120
 ctttattcat tttttgttgg ggggatgccc tttgttattg ctttgaggag ctttatgcat 180
 acaaatccat tatctaacaa atgtgtttca aatattttat gccagtcctc ctcttccctc 240
 tcctccccc tcgag 255

<210> 638

<211> 290

<212> DNA

<213> Homo sapiens

<400> 638

gaattcgcg cgcgctcgac cgttggcagt gtgggtgtg ttttgttat agttgagggg 60
 tcgcttcat atgtctcac caagtctaac tgactctgga agaccttttc tgaccaagtg 120
 acaacatcac aacttttagca gccctcatgg actttctcat gtgcacaaaa ctcaaaataa 180
 ttttatttat atttaccgct ttattgtctt ttctgtctt cggcggtttt cattctcttc 240
 tttcaaatag gctagggttag ttccatttct caagcgatca ttctctcgag 290

<210> 639

<211> 457

<212> DNA

<213> Homo sapiens

<400> 639

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt cttgacctgc ctcgaggtgt 60
 ttgctgtgaa gattttttta aacatgcgtt aaagatagaa agcaatcctc cttggcacgt 120
 gaggagattc caaacttctc aatatagctt agttctccct gactgtgagg atgttgacga 180
 aaactggatt ttttcaggaa gaaattagat ccagatttag cacttacgca tgtacacaaa 240
 tatataaaaa cagtcggacc agggaatgtt tctggcgatc tttgtcatct caaagtatct 300
 gacgtttatt cagtggcggt ttctatttag tggattttat tattgcacat tgaagctcat 360
 ggcaactgtt ttttaagact tgctctgcat tgtattccaa aacagttttc tctccgtctt 420
 ttatttttta atgaactcat gtgtcatttc ccacccc 457

<210> 640

<211> 183

<212> DNA

<213> Homo sapiens

<400> 640

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagtgac 60
 cggccagttt taccgtgttt tatgttctt tttttctata gtgtttatcc cttagcgtgc 120
 tatgtaattt atggatttac tatgttatt gcttgtgatt tgtctcctcc ccattccctc 180

gag

183

<210> 641

<211> 322

<212> DNA

<213> Homo sapiens

<400> 641

```

gaattcgcgg ccgcgtcgac tgcacattca aaggataact attttatttt tggcgaagat 60
acattttttaa cttgttgcta ggataaagtg ataaaagaca tttagcccta attaattatc 120
tgccagtaaa atgaaacatt gttctgcctt ttcatttctg tatttaattt actactttca 180
gtactatggtt ggcctgaaga catctaagct ctctcaagat acggaggtag ggttccatga 240
catttcttcc ctatctgtca gttttgaaac ttcaaatgcg tgtgagatag atgtgtcctt 300
aaaagagtct ccggaactcg ag 322

```

<210> 642

<211> 148

<212> DNA

<213> Homo sapiens

<400> 642

```

gaattcgcgg ccgcgtcgac ccgtcattga attctagacc tgcctcgagt gtggagttga 60
tactgatcag agctttacta gaatttttct cttctttttt aaaactaaaa cgtgggaaaac 120
taagaagatg ttaagggttg ttctcgag 148

```

<210> 643

<211> 326

<212> DNA

<213> Homo sapiens

<400> 643

```

gaattcgcgg ccgcgtcgac acctgtcatg tgtgcgcacg tgcattggtg tcgccgagga 60
gcggcccagg attgcgtga ccagtcctt ctccaagctc ttcaaggacc tgggcctgcc 120
ggcccgcgcc gtaagcacca cgttcgggtg cagggtcaac gtggccatct gcctccaggg 180
cacagctggc ccggacccca caaccgtcta cgtggacatg cgggactgc gccatgacag 240
ggttcgtttg gtagaacggg gttctccgca cagcctgccca ttgatggagt ctggaaagat 300
cctcccggc gtgaaggtca tcatcg 326

```

<210> 644

<211> 130

<212> DNA

<213> Homo sapiens

<400> 644

```

gaattcgcgg ccgcgtcgac cccctctact accttttgaa taattttctt tcattttttt 60
tcctagctgt cccctggcgt cctcaccaac ttttcttaga gacatggtct cactctgtca 120
ctggctcgag 130

```

<210> 645

<211> 559

<212> DNA

<213> Homo sapiens

<400> 645

```

gaattcgcgg ccgcgtcgac ccatgaacag gatccgaaag tttttccgag gaagtgggcg 60
agtcttgga tttatctttg tagcttctgt catctggctc ctctttgaca tggcagctct 120
ccgcctctca ttcagtgaaga tcaacactcg ggtcatcaag gaagacattg tgaggaggga 180
gcggatagga ttcagagttc agccagacca aggaaaaatt ttttacagca gcataaaaga 240
gatgaaacct cccctaaggg gacatgggaa aggggcatgg ggcaaagaga atgttagaaa 300
aactgaggag agtgtgtca aggttgaggt ggacttgagc caaaccaga gggaaagaaa 360

```


aatgcagaat gccctgggaa ggggcaaggt tgtgccgttg tggcatcctg cacatctgca 420
 gaccctccct gtgactccta acaagcagaa gacagacggg agaggcacca aacctgaagc 480
 ctectctcac caggggacac caaagcaaac gacagctcag ggggctccaa agacctcatt 540
 catagcagca gcactcgag 559

<210> 646
 <211> 215
 <212> DNA
 <213> Homo sapiens

<400> 646
 gaattcgagg ccgcgtcgac agtatgggaa atgttggtt tttaaaatgt tacacaaatt 60
 tctttatgat aggactcttc agagctttta gcattctaata gcagagtggg aatgtgaatg 120
 gcaggattca gtataatcag cagtcctcaa ctctatctga acacagaact cttgttctgc 180
 atatcatcga tttgcacacc ctggaacaac tcgag 215

<210> 647
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 647
 gaattcgagg ccgcgtcgac ctectcgggc tatecccaaa ctgccacttt taactcttga 60
 agtaataaaa taatctttgc tggcaggact atgctgaatc tccttaggca ctatctactc 120
 gag 123

<210> 648
 <211> 149
 <212> DNA
 <213> Homo sapiens

<400> 648
 gaattcgagg ccgcgtcgac gggggaagta gaaagagagg cattccaggc atgactggag 60
 taaagaaaag gaacatgttt tgtttctttg agactgtaac cagcctttgt gctgcagcta 120
 tatttgtgga aaagatcggg ggcctcgag 149

<210> 649
 <211> 503
 <212> DNA
 <213> Homo sapiens

<400> 649
 gaattcgagg ccgcgtcgac tgccgtggcc tgcttctga cccgcgggga cctctgggtc 60
 agctgggaga gcgggggtccg ggtatttgat gagctgctcc tggatgcaga tttcagcgtg 120
 aacgcaggca gctggatgtg gctgtcctgc agtgcctttc tccagcagtt cttccactgc 180
 tactgccttg tgggcttttg ccgtcgacg gacccagtg gggactacat caggcgatac 240
 ctgcccacaaat tgaaagcgtt cccctctcga tacatctatg agccctggaa tgcccagag 300
 tcaattcaga aggcagccaa gtgcacatt ggtgtggact acccagggc catcgtcaac 360
 catgccgaga ccagccgggt taacattgaa cgaatgaagc agatttacca gcagctttcg 420
 cgctaccggg gactctgtct actggcatct gtcccttct gtgtggaaga cctcagtcac 480
 cctgtggcag agcccagctc gag 503

<210> 650
 <211> 258
 <212> DNA
 <213> Homo sapiens

<400> 650
 gaattcgagg ccgcgtcgac gagagtccg agtgccctacc taaattacta agacaataaa 60
 ggacatacaa aagaagataa tcaaatgtta ctttgggtac ttgaacactt gctaagagca 120

tgcacccctgc agtcagtaac attaccatct atactcagag ggcaaacgct aatttcaa 180
 ccagagcaat gtcaaggatt tatcactgca acccaaagta tctttgctat caaagacagt 240
 gggggcataa aactcgag 258

<210> 651
 <211> 175
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (128)

<400> 651
 gaattcgcg ccgcgctcgag tcgattgaat tctagacctg cctcgagtga gcgaatcagt 60
 gaaaacgatg cttcatcatg ctcttctcca gtgtgacctgt ttccacaga tacagctttt 120
 attctgtnac ttcttctca ctccctctca taccatcccc acccacaacc tcgag 175

<210> 652
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 652
 gaattcgcg ccgcgctcgac cctaaacctg cgattgaatt ctagacctgt ctcaaaaaaa 60
 aaaaaaaaaa aaggagagaa aagaaaatgt tgtatatttt actttgcata accataattt 120
 atatgtcttt tggtcttctg tggtgctcca tgaaaaaatt gactgcttta gtcacaaact 180
 caactgccac actcgag 197

<210> 653
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 653
 gaattcgcg ccgcgctcgac aggtcgctcc atttcttga gtggacctt ctttctccaa 60
 atcacctaag aggaaaacta agttatttct gactttttcc ttactttat tccccaaag 120
 ggaaaccagt catgaaattt aagacactct gtctacttag catttctct ccttttatta 180
 tttccaccat gccccaatct ctcgag 206

<210> 654
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 654
 gaattcgcg ccgcgctcgac tttttctttt tttttttttt ttatcctaga cctcaccctt 60
 ataataattg taggattacc actgtgaggg taaaacctg cattgagttg acattattta 120
 atgttaaaat tgattttttt aaatgatgtg gagcttttgg gtctatttgt ttattcgatg 180
 ttgtacaag tttgttactg tgagttactc gag 213

<210> 655
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 655
 gaattcgcg ccgcgctgat aaccgctgat tgaattctag acctgcctcg agtttttggg 60
 cttgagaaag acaattgtct gactctgctt tgtctagaga ttttgccat gggaattcaa 120
 tatttgaagt ctgtcatatc tttattgccc atgatgattg ttttaataa cttcgaagaa 180

aataaatgta tcccacaacc cctcgag

207

<210> 656

<211> 337

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (32)

<400> 656

```

gaattcgcg cgcgctcgac cgcggnccgc tngacctgcc accccagggt gaatggcgaa 60
gccctccacc aacatggcag cccacagagg ctactgagga ggttgagggg ggcttcaggt 120
ggaaggatta gcctggccag gcacagagtc cctgaaaagg gatgagaagt gaagaaaacc 180
tgggataggg tggagtgaga gtcgccatt tctctgccaa gcaggacgca agccatcttc 240
tgcaagcagg aggtggagaa gtgaggaagg gtgaaggttt ggcttgagta gagtagtcag 300
tgtggggcca agaaaaggga ccagggacga tctcgag 337

```

<210> 657

<211> 199

<212> DNA

<213> Homo sapiens

<400> 657

```

gaattcgcg cgcgctcgac aaatgccaca tgtgaagatt ttcttgcaat ttgcctcgt 60
gttatccttg ctctctgtgg tatctagagc cccagtcatt gtgtcattat gggactctaa 120
cagttgctgc tcaatgacac ctgcagacac tgagttcage tttgtccctc cgctggatca 180
gtctccactc cctctcgag 199

```

<210> 658

<211> 335

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (297)

<400> 658

```

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc actcgagtct 60
gggcaacaga gcgagactcc atctcaaaaa aaagaggtag atcagctctt gtcatttate 120
tgctgtctct ggacttgctg accccaccca tcgctcctct gctttgcttg atcccttcag 180
gcttctcttc aagtctctct gcaaagatgc ctgcctctga aactcaagt ggctccactt 240
gtccccctct tccccctgct ttactgtacc tgctactgtc cccccagggg gagcttngcc 300
tctgtttgtc ttccatcccc agcaccaaac tcgag 335

```

<210> 659

<211> 152

<212> DNA

<213> Homo sapiens

<400> 659

```

gaattcgcg cgcgctcgac ttctctgcct cgagagtcta tagtatgcat ccatttcatt 60
ttctctctct gattattgtc atctttccct ttgccaaatg ggcagttatt gtttcagggg 120
gagaagctgc tcattggcca atcattctcg ag 152

```

<210> 660
<211> 296
<212> DNA
<213> Homo sapiens

<400> 660
gaattcgcg cgcgctcgac ttgctttgaa gtaagtctca ataaggcaat atatttttagg 60
gcattcttct tcttatctct gacagtgttc ttaaaattat ttgaatatca taagagcctt 120
gggtgtctgtc ctaattcctt tctcactcac cgatgctgaa taccaggttg aatcaaactg 180
tcaacctacc aaaaacgata ttgtggtta tgggtattgc tgtctcattc ttggtatatt 240
cttgtgtaac tgcccattgg cctgaaaata ctcattgtaa gcctgaaaag ctcgag 296

<210> 661
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (41)

<400> 661
gaattcgcg cgcgctcgac gacctgcctc gaataagtgt ntattatacc ccaatattag 60
aagggaagaaa taaaagtaaa agataaagca caccagtgcac aaaatggata tgtttccac 120
catgaatgca tatttcgttt gtggcagttt aaatattaca ctttgcttca atgctgtctg 180
ctggttataa atagcccagg gccctgctcc tgatcacagc tcaaaggaag gctgcctaca 240
tttatgtttg tgccctaagt attgtataag tccatgcctc gagatgttac tcatcccagt 300
ttcgtgtttg ttggtaaaga gggagttgta cctttagtag tttcatttct tctctcccat 360
acattgactc atattggtga ttatgtcaaa aactacttaa tttgtataaa ggcattccca 420
acagctcgag 430

<210> 662
<211> 176
<212> DNA
<213> Homo sapiens

<400> 662
gaattcgcg cgcgctcgac gcattgtgtt taaatttaac attccttaga gaaacccag 60
aaatctcatt tatttttggc agatattctg tgcagcaaaa atcaagtga tttccctctt 120
ccccactcct caatttaatg ctgtactcaa aatggctaaa cgcaatactt ctcgag 176

<210> 663
<211> 326
<212> DNA
<213> Homo sapiens

<400> 663
gaattcgcg cgcgctcgac gtcgattgaa ttctagacct gcctctgttt cttctctcgt 60
gtaatcgcaa aacccatttt ggagcaggaa ttccaatcat gtctgtgatg gtggtgagaa 120
agaaggtgac acggaaatgg gagaaactcc caggcaggaa caccctttgc tgtgatggcc 180
gctcatgat ggcccggcaa aagggcattt tctacctgac ccttttctc atcctgggga 240
catgtacact cttcttcgcc tttgagtgc gctacctggc tgttcagctg tctcctgcca 300
tccctgtatt tgctaccatg ctcgag 326

<210> 664
<211> 201
<212> DNA
<213> Homo sapiens

<220>

<221> unsure

<222> (176)

<400> 664

gaattcgcgg ccgcgctcgac agttgggctg atgggtcaggt ggctatcaga gggtaagcaa 60
aagatgtttg gtaaaagagc aacccccctgg ccccatctac caagaatgaa gaaagtaggt 120
gccatgttgt aatttcagct gacaagaagc attagcatta tcgcacactt tgtganttaa 180
gtaatgattt aattactcga g 201

<210> 665

<211> 132

<212> DNA

<213> Homo sapiens

<400> 665

gaattcgcgg ccgcgctcgac ggtgggtact gtagatttga gctggcataa cacagtgtgt 60
tcactaagtt ttatgagcat aaacattaaa atgttacata aaatatacca taatttactt 120
cactcactcg ag 132

<210> 666

<211> 469

<212> DNA

<213> Homo sapiens

<400> 666

gaattcgcgg ccgcgctcgac accctattaa aaaggaggag ggcagtattt tgggattttt 60
aaggaccttg aaattaactg atagtttgaa acatatagca gagaactgat aatctttttt 120
taggtcatga aagtaaaatg ttttaagatac aatatttttg gtcttttttag taaaggcatt 180
tgttttcagt aaagatactt ctttttttaa ggagagaatt taggattacc atttggtaa 240
agagtatatg gaacaagaga tattaataag agaagtagag taatggaaag atctgaaact 300
ggtattgagc tgtctcactc cgttgccag gctaggggtga agtggcatga tctcggtca 360
ctgcaacctc tgcctcctgg gctcaggctg ggactacagt cacgtgccat catgcctggc 420
taattttttg tattttttgt agagatgggg ttttgccact agactcgag 469

<210> 667

<211> 140

<212> DNA

<213> Homo sapiens

<400> 667

gaattcgcgg ccgcgctcgac ctaaccgtcg attgaattct tagccgcctc gtctgttaa 60
atttcaggat gtcaaaactg gcttcctttt tttggtttct atttttctta gtattaccag 120
ggtgtgcaga gcggctcgag 140

<210> 668

<211> 690

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (139)

<220>

<221> unsure

<222> (287)

<220>

<221> unsure

<222> (305)

<220>

<221> unsure

<222> (310)

<400> 668

```
gaattcgcgg ccgcgtcgac gaggattgat tcagttagcc gtcttgccca acccaagtta 60
actgtacttc atcttagtct atgttggtgt tagaaacaac aaaaaggaaa aaaaaagcc 120
aaacagtaga gcaacaatnc attcattcat aaaagtaatt acatgccatc taactaatca 180
catggtaaat aatttaaag gtttagaagg gtatgaaaga aaaagtccca cccctcttct 240
tcccagcctg ttcccagat gtgaccactg ttaacatact tgtgtancct tctagatata 300
tatanttgtn tccttttaaa aaaattatac agataggatc ggagttcaca ttttgttttg 360
catcctactt tttcacttgt tgataaacca tagaactctt ttcatagcaa cacatataga 420
tttagcatag tgttttaagt ggttacatag cattgatgtg ctctaagtta ttttaaccagt 480
cttctgttga tagctatttg ggttgcttct gttttttagg tattacaaat aaaaataaaa 540
aaggacatcc tgatagatat ttttctgcat agttatgcaa gtaagtccat gggatcaaca 600
tctatccatg aaatggctat gaattctaaa tttttatagg tgtttctgta ttgcttacta 660
aaaaaggtta tgccacttta cgtactcgag 690
```

<210> 669

<211> 403

<212> DNA

<213> Homo sapiens

<400> 669

```
gaattcgcgg ccgcgtcgac gaggtaggtt gcggtctgtt agtagtatag tgatgccagc 60
agctaggact gggagagata ggagaagtag gactgctgtg attaggacgg atcagacgaa 120
gaggggcgtt tggatttggg ttatggcagg gggttttata ttgataattg ttgtgatgaa 180
attgatggcc cctaagatag aggagacaga atatgagtac agcggcagcg aggaggaaga 240
tgacagccat ggagaggaag gagagccaag ctccatcatg aacgtgcctg gagagtcgac 300
tctacgccgg gagtttctcc ggctccagca ggaaaataag agcaactcag aggcctttaa 360
acagcagcag cagctgcagc agcagcagca gcacggactc gag 403
```

<210> 670

<211> 441

<212> DNA

<213> Homo sapiens

<400> 670

```
gaattcgcgg ccgcgtcgac gttggatgaa gaaatggtaa aaactagagc aaaagtctta 60
aggagcatat atgaattcct cagtgcagaa aaaagggaat ttcgttttca gttgcgaggg 120
gttgcttttg tgatggtaga agatggttgg aaacttctga agcctgagga ggtagtcata 180
aacctagaat atgaatctga ttttaaacct tattgttaca agctaccttt agaacttggc 240
acatttcacc agttgttcaa acacttaggt actgaagata ttatttcaac taagcaatat 300
gttgaagtgt tgagccgcat atttaaaaat tctgagggca aacaattaga tcctaatgaa 360
atgcgtacag ttaagagagt agtttctggt ctgttcagga gtctacagaa tgattcagtc 420
aaggtgagga gtgatctcga g 441
```

<210> 671

<211> 175

<212> DNA

<213> Homo sapiens

<400> 671

```
gaattcgcgg ccgcgtcgac ggggagactc atagcacctt aacatgaata tgaaactttg 60
cttaagggaa aaaaagaagg ctgggaaaag catttccatt ttgatgatga tgatgatagt 120
gatgatgatg atggtggtgg ctaacactta ccaatgcttc ctccagagctc tcgag 175
```

<210> 672

<211> 333

<212> DNA

<213> Homo sapiens

<400> 672

```
gaattcgcgg ccccgctcgac gtcgacgcgg ccgcgaattc gggccgcgt cgacacagt 60
gggaaaacca tggaggccca cacatggatt cttcaacact atagcaaaaa tgagacacac 120
atcatttttg ctcagtttta ttggccagag caagtcttgc agcgaaagct aacttgaaag 180
agtaaagtct gatcatcctg atacctggaa taggacctcg atattggtaa atagtcatac 240
acatttcatt gttgcatacc aacagacaca cactcacaca cgtatagaca tttagcctta 300
agttcaaata tgaaattgac cagaggactc gag 333
```

<210> 673

<211> 354

<212> DNA

<213> Homo sapiens

<400> 673

```
gaattcgcgg ccgcgctcgac ctctgtcgaa aaaaaaaaaa aagaaaaaga aattagcttt 60
ttccttgagg taaacccaaa aatattagag gtttggaatc aaatattatt ccattttatt 120
ggtttttaat cattttgtaa tatgaattat ttttgtgtac taataaaaaat aacaacatcc 180
cagaaatgtg agttttcttt aattattttg atgtccctct tgtgggttgg attggctcat 240
ccccttactt cctatatgtt cctttcagggt tctacagtg tgggggtctt cagccagcct 300
gccctcactc ctaatgattc attctccacg gtaagaaaaa gcccaaccct cgag 354
```

<210> 674

<211> 291

<212> DNA

<213> Homo sapiens

<400> 674

```
gaattcgcgg ccgcgctcgac atcatgttct aacatgcttt ctcagttacc tattttttat 60
gtttgttgtt tattatcagt atcccttgct agaagcataa gctcactggg gcagggttct 120
ttgtctgctt tatttagtg tgtataccaa ttgcctagaa cagtgcctgt aagagaacgg 180
tcttcagtga gttggatctg ccagggtggca tctggagtgg ttggtgcaga agtaaaagaa 240
atgatgatgy ctttggtatg attcacatat cagagcataa ggaatctcga g 291
```

<210> 675

<211> 159

<212> DNA

<213> Homo sapiens

<400> 675

```
gaattcgcgg ccgcgctcgac gagcatgagg agttattttt ttttcttttt cttttacttt 60
tttttttctt ttcagacaag atcttgctgt ttcacccagt ctgcagtaca gtggcatgat 120
catggctcac tgcaagcctg catctcccgg tccctcgag 159
```

<210> 676

<211> 274

<212> DNA

<213> Homo sapiens

<400> 676

```
gaattcgcgg ccgcgctcgac tgaattctag acctgcctcg agatctttgt gagagcagta 60
ttttctgtgt tttcttttta atttacagcc tttcttattt tgatattttt ttaatgttgt 120
ggatgaatgc cagctttcag acagagccca cttagcttgt ccacatggat ctcaatgcca 180
atcctccatt cttcctctcc agatattttt gggagtgcga aacattctct catcctactt 240
agcctaccta gatttctcat gacgagtact cgag 274
```

<210> 677

<211> 100

<212> DNA

<213> Homo sapiens

<400> 677

gaattcgcgg ccgcgctcgac cgggcaggtg ttaagtttgt gaaaagtgat gcaatttgtt 60
atacattcaa atgcaaatta gaactagcgc cttactcgag 100

<210> 678

<211> 473

<212> DNA

<213> Homo sapiens

<400> 678

gaattcgcgg ccgcgctcgac ggtatctagc cctagaatgc ctagaacagg aagaggcagc 60
tggtgttctg caaaacttgg acaggggcaa agttgctgaa aaagttttgg ttttaaccga 120
agataagtgg aaaagagctt gtccatgaac ccagggtctc actctgttta cagaagtgtg 180
ttgagtagac ttggtgaagg aagaggtaac aaaaaatgct aaatatttta tccatgaaaa 240
tgacttccag aaaagggaaga atatgaaccc cagaccgaag gggaaaagat agttaatagt 300
attatctaac ctggttggtg tttgtaatga atggtgattt taattagtca ttagccataa 360
tgatgtttat ttacagtata actcctgaat gctacttaaa taaaccagga ttcaaactgc 420
aagccagcca ggccgttcat tatttaaaac gttttaatcg gggctcactc gag 473

<210> 679

<211> 133

<212> DNA

<213> Homo sapiens

<400> 679

gaattcgcgg ccgcgctcgac tcgaggggtg tgtgttcatt cgtgtgctgt gttgtgtgct 60
gtgtgtgtgt gtgtgtgtgt gtctggcaag caagggtctt cacacacaca gcactttggg 120
aggccctctc gag 133

<210> 680

<211> 467

<212> DNA

<213> Homo sapiens

<400> 680

gaattcgcgg ccgcgctcgac cgatagtc aa ttccagaaac cgctatgaag ttcctctctg 60
caagagactt ccatccagtt gccttcttgg gactgatgct ggtgacaacc acggccttcc 120
ctacttcaca agtccggaga ggagacttca cagaggatac cactcccaac agacctgtct 180
ataccacttc acaagtcgga ggcttaatta cacatgttct ctgggaaatc gtggaaatga 240
gaaaagagtt gtgcaatggc aattctgatt gtatgaacaa cgatgatgca cttgcagaaa 300
acaatctgaa acttccagag atacaaagaa atgatggatg ctaccaaact ggatataatc 360
aggaaatttg cctattgaaa atttctctg gtcttctgga gtacccatagc tacctggagt 420
acatgaagaa caacttaaaa gataacaaga aagacaaaac cctcgag 467

<210> 681

<211> 361

<212> DNA

<213> Homo sapiens

<400> 681

gaattcgcgg ccgcgctcgac ccaggatgcc aactttgaat aggatgaaga ctacaacttg 60
ttcccttctc atctgcatct ccctgctcca gctgatggtc ccagtgaata ctgatgagac 120
catagagatt atcgtggaga ataagggtcaa ggaacttctt gccaatccag ctaactatcc 180
ctccactgta acgaagactc tctcttgac tagtgtcaag actatgaaca gatgggcttc 240
ctgccctgct gggatgactg ctactgggtg tgcttggtgc tttgcctgtg gatcttggga 300
gatccagagt ggagataact gcaactgcct gtgcttactc gttgactgga gccactcga 360
g 361

<210> 682
 <211> 296
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (9)

<400> 682
 gaattcgcng ccgcgtcgac aacagggtga tgagctgcac tctgctgaaa ggagtctgca 60
 caatgaaatt tctcatgatg attgtgttct tacaggatc tgctgtgtgg gctgctccca 120
 tgaatgacag tgaatttgcg gaatggtact tgcaagatt ttatgattat ggaaaggaca 180
 gaattccaat gacaaaaaca aaaaccaata gaaacttcct aaaagaaaaa ctccaggaaa 240
 tgcagcagtt ctttgggcta gaagcaactg ggcaactgga caactccgaa ctcgag 296

<210> 683
 <211> 536
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (112)

<400> 683
 gaattcgcgg ccgcgtcgac ggcaacagca ccaataacag catccagacc attgattcca 60
 cccaagcact gttcctcccg attggagcgt ctgtctctct cctcgtcatg tncttcttct 120
 ttgattcagt tcaagtcgtt ttcacaatat gtacagcagt tcttgcaaca atagcttttg 180
 cttttcttct tctcccgatg tgccagtatt taacaaggcc ctgctcacct cagaacaaga 240
 tttccttcgg ttgctgtggg cgtttcactg ctgccgagct gctgtcgttc tccctgtctg 300
 tcatgctcgt cctcatctgg gttctcactg gccactggct tctcatggat gctctggcca 360
 tgggtctctg tgttgccatg atgccttctg tccgctgcc aagcctcaag gtttccctgcc 420
 tgcttctctc agggcttctc atctacgatg tcttctgggt gttcttctca gctacatct 480
 tcaacagtaa tgtcatggtg aaagtggcca cacagccage tgacaatccc ctcgag 536

<210> 684
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 684
 gaattcggcc aaagaggcct aggaaaacta taaagggtggc cgtacttact aatattttca 60
 gatgcactat ttattttggt tagtttttct tactgtcttt tgtctattgc catgttccat 120
 ttccccaccg ctcgag 136

<210> 685
 <211> 660
 <212> DNA
 <213> Homo sapiens

<400> 685
 gaattcggcc aaagaggcct acatggttcc aagaaactgc ataagcatac gaaataagtt 60
 gcagcctccc gacttatacc ctggtacttc tagtctaaaa caggatttga ctctactaat 120
 ccagccttat acaggatgct gtgttctttg ctcttttggt aatgtctggt gctggtagct 180
 ggttatgctc atgatgatga ctggattgac cccacagaca tgcttaacta tgatgtcgtc 240
 tcagggaaca tgagaaaatc tcaggcaaaa tatggtattt caggggaaaa ggatgtcagt 300
 cctgacttgt catgtcgtga tgaaatatca gaatgttata acaaacttga ttctttaact 360
 tataagattg atgagtgtga aaagaaaaag aggggaagact atgaaagtca aagcaatcct 420
 gtttttagga gatacttaaa taagatttta attgaagctg gaaagcttgg acttctctgat 480

gaaaacaaag gcgatatgca ttatgatgct gagattatcc ttaaaagaga aactttgtta 540
gaaatacaga agtttctcaa tggagaagac tggaaaccag gtgccttgga tgatgacta 600
agtgatattt taattaattt taagtctcat gattttgaaa catggaagtg ccgactcgag 660

<210> 686

<211> 381

<212> DNA

<213> Homo sapiens

<400> 686

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagtct 60
cagaagaaaa aacaacgaaa tatcttatgt taatctaaaa aaccttcagt gacctacttg 120
atctcatttt ctaccatttt cctcctcttt ttctgaaata catcaacaca gagcactttt 180
cctctccttt aatgcacaaa gatggcagga cttttgaatg ttacatttat ttatcttctt 240
ctagagtgcc tttccttata cacccatgtg acttggtcct ccttctcttc tagtctttgt 300
ttatatatat attattatca cagagggcta ggaaagaaaa caccactgc tgcgccccac 360
actcatccac ctaccctcga g 381

<210> 687

<211> 202

<212> DNA

<213> Homo sapiens

<400> 687

gaattcggcc aaagaggcct atcgagggtt tgctggaaaa gtcgtgtgcc ctgcatttca 60
gtaaatattg cttctttaag ggcagatacc tcagattgca acactcatgg tgttttcaac 120
cttctgcata taaagtggga gcgtttacta tcttcccagt gcaaatact tagacacaaa 180
ggatgatata gaaagactcg ag 202

<210> 688

<211> 518

<212> DNA

<213> Homo sapiens

<400> 688

gaattcggcc aaagaggcct acttctatct atctcagacg ttcttttctt aaaagaagca 60
agactcaggc acactgaagg tcatttccat gggacacact tgattgctta gaaaaacaaa 120
tttgaaaaat actttcttca gaaggaaaga tattgtttct ccagggtaaa atatttctga 180
gggcttgact ctttccaatg acgcctttat gtaagctgtt ggagcagggc tcttaattga 240
taagcagctg tgtttaatat tcacaatgaa tagcatattt aaaacgtcaa cccagtgttg 300
attcttatgg cagtatctga ggcgagagag accaaagcaa caatgacaat gaatctttag 360
attctggaaa ctccaggagaa gccacactat ctctagagtc accaccttcc ttttttaaag 420
aaagagggaa gggtcccttc tccaaaggaa agtttgett cccaggtaacc gtgatctttg 480
tgacctatta ctgatttctg ttaaacagag tactcgag 518

<210> 689

<211> 293

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (75)

<400> 689

gaattcggcc aaagaggcct agcacattta aatagccact atactctagc ctaggcaaca 60
tagcaagacc ccatnttaaa aaaaaaaagt atatataatt tcaactgaaac ttgccctaca 120
agagtgggta taaattttta aaaattagga ctaaaaatag agtgtattct ttgtaattag 180
aaattatacc tggattccat ttatctaaca tgctgctgaa gtattttgca agtatagtta 240
cgggtattaac agtgtgggct ggtgtaccat tattggtaag ggacaaaact gag 293

<210> 690
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 690
 gaattcggcc aaagaggcct aggggtagca aggaggtggc ggggcgggta aggggtacggg 60
 cagtgggtgca gaagggaaga aggttggttac gcaaggagaa ataaaaagga acctgaaaat 120
 aaaaaggagg gaggaggaag gcaagctaag ggtactgtta gtgtccctgg cactccgtcg 180
 tggggccagc gttgccttga gacctccac cctccctcag cctcaggaga attaggttcc 240
 agtccctcta ggaaggacag ggctgccagt gacaccagag aggaacagag agtgccgagg 300
 aaccctgggg cggtccagag gttgggggag ggaaggttgg ctggctagag ggcatgtgc 360
 caggagcagg atggggggcc aagctgggca gtgtccaggg tcaggggcag ggtggaagac 420
 cctcggggtc aagcacagca gagatcgctg gggcagttca ctagggggtga ctgaaggtgg 480
 gaaaggaggg gtggctcgag 500

<210> 691
 <211> 568
 <212> DNA
 <213> Homo sapiens

<400> 691
 gaattcggcc aaagaggcct acatgtacct cttctcata actatttctt tcttttgtgt 60
 ttttttcagg gctcagaaaa agctctcttg tagtctagaa gacttgagaa gtgaatctgt 120
 ggataagtgt atggatggga accagccctt ccgggtgtta gaaccaagg acagcccttt 180
 cttggcggag cacaaatata ccactttacc tgggaagctt tcaggagcca cgcccaatgg 240
 agaggctgcc aaatctcttc ccaccatctg ccagcctgac gccacgggga gcagcctgct 300
 gaggctgaga gacacagaaa gtggctggga tgacactgct gtggtcaatg acctctcatc 360
 cacatcatcg ggcaactgaat caggtctctc gtctctcttg acaccagatg gtaaacggaa 420
 tcccaaaggc attaagaagt tctggggaaa aatccgaaga actcagtcag gaaatttcta 480
 cactgacacg ctgggggatgg cagagtttcg acgaggtggg ctccgggcaa ccgagggggc 540
 aagactctct agyaccaggg acctcgag 568

<210> 692
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 692
 gaattcggcc aaagaggcct actcatctct actcatccct tcagccactc aaacctgccc 60
 ttctctgccc aggttctcag tcagaatgac ccagtgcca aaatacgatt cagaatgttc 120
 ctgtggcata gtcacccagt tcccttttat gtctccattg ctactcactg ggctatacat 180
 taccagcttg atctcccatc caccaacacc tctggacact tctatcagcc atctttcagc 240
 cttgcttggt ttgtctccca gcctgggtcca ttgtttcaac aacgcttttg ctaacactaa 300
 tctcgag 307

<210> 693
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 693
 gaattcggcc aaagaggcct agttaggccc gacatattgt gagaaaatgt ctggtaacct 60
 ttttaacagg tgattgctgg aatttgatga ttgcctccgt aaatgtggag gcacagggga 120
 cccgtgtctg cccgcatgca ccttgctaac tggctgcttg ttttccggtg caggtgcttg 180
 aggaatccaa agccctcgtg cgctgcaaca tgaagatgga gctggagcag gccaacgaga 240
 gggagtgtga ggtgctgaag aaaatctggg gctcgcccca ggggatggac tccatgttaa 300
 agtacttgca gaggaagatc gatgagttct gagtgtcggg ctgcccactg gatctcgag 359

<210> 694

<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (57)

<400> 694
gaattcggcc aaagaggcct agagatagct gtatttgatt tacaatgaac aagattnaca 60
aaaaggggtg ggggtggtctt ggaactgctc ccagtccccc cggactgggt ggggctctag 120
ggcagcctgt ctgacagacc aggaccccag gatgtctggg ccccgacgta ggacttgacc 180
tacgtctcac ttgacctttg acgtggggcc cagcagccgt gagtccacc agagtgccgg 240
cacccttggg gaggccggtg aggtcaggaa ggcacgtac cgctttttct cctccctcca 300
tctcgtggtg gacagacaga cataggatct gggaacttgc cctggggggc acaggccctc 360
agatccccc ggggcccac ctagggcctg gaggcggctg ctggtgcgtg ggcggaggcg 420
gaggccagct gccccagcg tggcagcgta aggcacattt tcaaatcact cgag 474

<210> 695
<211> 180
<212> DNA
<213> Homo sapiens

<400> 695
gaattcggcc aaagaggcct aggtatttgt tgttccttta ttctgttgat gtgaaacatc 60
atgactattg acttgcaaact gccaaaacat ccttctatcc cggggacaaa tcccacgtta 120
tattgctgta ttatcttttt gatgtgttgt tggattcact ttgcttcgac tgggctcgag 180

<210> 696
<211> 136
<212> DNA
<213> Homo sapiens

<400> 696
gaattcggcc aaagaggcct acacgacagg aaacatgcag ttggggatga tgctcaagtt 60
gttcaaatg tttactttcta ctttggagtc ttcaattaag gtgccagggc tagtgactcc 120
tgggaattgt ctcgag 136

<210> 697
<211> 290
<212> DNA
<213> Homo sapiens

<400> 697
gaattcggcc aaagaggcct aaagccagaa acctgtgtca tcttttcacc ccacettcaa 60
tcaacaagtc ctcaatcaac aagtcctact gactgcacat cttaaatata tctttatcag 120
tccacaagtc cttccaatta tttttcccaa gtatatctag aacttatcca cttatatccc 180
cactgtact accttagttt agggctatat tctcttgaaa aaaagtgtcc ttacttccctg 240
ccaateccca agtcatcttc cagagtaaaa tgcaaatccc attcctcgag 290

<210> 698
<211> 152
<212> DNA
<213> Homo sapiens

<400> 698
gaattcggcc aaagaggcct aaaattaacc aacctcaaaa attatatatt gaagcttccct 60
ctactgtaag gaaatccatg aaactgttaa caactgttgc cttttggatg ttgccagtag 120
cccttgggca gaacatgtct tttcgtcacc at 152

<210> 699
<211> 619
<212> DNA
<213> Homo sapiens

<400> 699
gaattcggcc aaagaggcct aagtgttgt tcaaacagca gattcccagg ccttattttg 60
gcctaaagaa ccagagtcta ggtggtggga cataggaatc tgcatttcag taaactttac 120
acgtgattct tctgcacaca gtattgaaga gcaactagat taaattctag ttacaaaaat 180
taccagtttt cttcaagaac taaatgatat gtctttttt tttttttcaa agaggataag 240
gctgctattt aaataaaata gctaaatgga gagtgagaag tggagcaggt tcattcagca 300
gcattcttaa ttgagccagc attgacaccc agccagcagg cctttgcatt gcattcgggg 360
accatgactc tgaatctgct taccaatcaa tctcgggtta atcaccaaaa gtgcagagca 420
ggcaaatgc agctgtttat caatctcaaa agctttggga cagtgtcata gttgaaagat 480
gagacttaag aaaacagttt cttaaacttc ttaaaactta agaaacattg tttcataaaa 540
caatattgag tgggcattct tctgcacagt gtgatgctcc aaccctggcc ctagtctcag 600
tagaccatgc tgcctcgag 619

<210> 700
<211> 287
<212> DNA
<213> Homo sapiens

<400> 700
gaattcggcc aaagaggcct aaagtactgt gtatgggggtt tgctattcta aaaaacattt 60
ttatttttgg aatttttagtg gattttactt atccctcatt ggaagaatca attccttcta 120
aacctgctgc ccagacgcca cctgcatcta tagaagtaga tgaaaatata gaattgataa 180
gtggtcaaaa tgagagaatg ggaccactga atatatcaac tccagttgaa ccagttgctg 240
cttctaaatc tgatgtttca ccataatcc agccagcgcc actcgag 287

<210> 701
<211> 106
<212> DNA
<213> Homo sapiens

<400> 701
gaattcggcc aaagaggcct actttaaaaa agagcacttt atcacgacaa aggggtgcaac 60
taacaattaa aatcagacaa tgctgtttct gcaccgcttt ctcgag 106

<210> 702
<211> 191
<212> DNA
<213> Homo sapiens

<400> 702
gaattcggcc aaagaggcct aggggataat aagaaaaaag tatgtacatg tttagtgcag 60
gcacagctat catttttttt tcaaatatct tcaatctaca gatgcagaac cacagatata 120
gagggccaac tatatctgcc tattttataa atacaaagca ggcaacaccc acaaagacat 180
atttactcga g 191

<210> 703
<211> 534
<212> DNA
<213> Homo sapiens

<400> 703
gaattcggcc aaagaggcct aatggaggaa gagacctgtc ccaatgtgtc attcggtaga 60
tctcaatttc tcctagtacc tcattgtcat tcatttttca cccccaacag acaagtggag 120
actgatatta ttccctttta caatgtaaca aaatcaaaagc ttagaaaacc aggggggtttg 180
gaaaataaagg aatttgtgta ggattaaaat agaactttga gctcctggac tctgaatctt 240

agcttctacc ttgcacttaa ataaatttat gctaacagat gtctctgcat cagataggac 300
 tttttttttt cttttttaatg tcggcaagtc tcattgttac agctctctgg tctgcccagt 360
 ttgggttacac ctgtttttgag attccttgcc tatacccttc caactgaaga caagcacttc 420
 ctactgtact tacagaactt tcattctatgt cttgggttaa tcttttgect ttgttttaac 480
 cgtttaccac ttctgcttta tattggtagg taatcttacc cccaaatact cgag 534

<210> 704
 <211> 591
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (43)

<220>
 <221> unsure
 <222> (90)

<220>
 <221> unsure
 <222> (107)

<220>
 <221> unsure
 <222> (154)

<400> 704
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 ctcaccccag ccaggcagag aggcaaaacn tgggggtccc cggcaantac gagattggaa 120
 aggttcatca gccctcccc atctgcccga ggcnttgta gggaaatcagt gggctcagaa 180
 ctggcaggcg gtgcaagctc tgtctccctg ggccacactg agggctgggg ccagctccct 240
 ggatgggggt ggagtttacc agcagcctgg ggacagcatg tctccttttt aggaaatgtc 300
 cttggaggaa gagttcatgt gtggcgctgg tcagcagcta gtcccgcttc caggacactg 360
 gtcagagtta ccgatgaggc ctgggggctc ccgcttgtaa accctccag ctctcccat 420
 ctgcccagac agagcgacag atggcaccaa tgcattgctg ctccctcatt cctgcccagg 480
 ggctgtggct tacggccagc accctgtacc tgggactcag cccttatccc ccctctgcta 540
 tctgtgctgg gagaggggct tcggagggaa acagatatga ggacactga g 591

<210> 705
 <211> 694
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (554)

<400> 705
 gaattcggcc aaagaggcct agttttatct tttcctttaa ttaacagtac tagtgacttt 60
 gtgaaagaat atgagttact atttaggtat gcttacttaa ctacaatata ctacattgca 120
 gtattttctga aacctaggac atacacatta tatatacaa ctctatattg aaatatatat 180
 tacattatat tcattttaac ttttgaatct gcctatgac atgagttgat tgaaatatta 240
 tgtctttgct tatatcacc atcaccaacc tgcctgagtt aatctggtgc atctagtaat 300
 aatcattagt gctetaatct gctttttata ttatcagctt cagtattgtc ttttagaggat 360
 tttagaatct ttttaaagctc agacttagca aatgtaggaa agtgaaaact ttttttgaaa 420
 cttttttgtt ggtgtgacta atacaaagag gttcatattc aaagtgtatc tgttttagctg 480
 acccactcaa tatctgaaga acaaaagagg tgcattatgaa tgcattctgt attttccct 540
 gtaggactgt cacngtctat atttgctttt aaaaatatga ccaaggggct acttaagtgc 600
 cacatgatct gaccaacaat aacaggctgc gtttcaaagg gccagctctc tgaaaagcgt 660

aagacagtga attacctagt tgtccccact cgag

694

<210> 706

<211> 544

<212> DNA

<213> Homo sapiens

<400> 706

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgaggat 60
gaccttagag gagagaccag aagaagaaaa gaataaggag ctgccagta cacacctgcc 120
caccaacgct gggatcctgg cggccaccat cattggatct cttgctgccg gggcccttct 180
catcagctgc attgcctatc tcctggtgac aaggaactgg aggggccaga gccacagact 240
gcctgctccg aggggccagg gatctctgtc catcttgtgc tcggctgtat cccagtgcc 300
ttcagtgacg cccagcacat ggatggcgac cacagagaag ccagaattgg gccctgctca 360
tgatgctggt gacaacaaca tctatgaagt gatgccctct ccagtcctcc tgggtgcccc 420
catcagtgac acaagggtcca taaaccacgc ccggccctg cccacacccc cacacctgca 480
ggcggagcca gagaaccacc agtaccagga cctgctaaac cccgacctg ccccttact 540
cgag 544

<210> 707

<211> 181

<212> DNA

<213> Homo sapiens

<400> 707

gaattcggcc aaagaggcct agtgggaattg gaaagggctg tatctgattt ggttgttcag 60
gcaaattatt ctgctgctga ttttaacaagg tgtgctgctg tggaattgga aaggggtggtc 120
ttggtagctg ggggaagggga tgaaagtggc gattagggat tgcatactgt gcggtctcga 180
g 181

<210> 708

<211> 103

<212> DNA

<213> Homo sapiens

<400> 708

gaattcggcc aaagaggcct agttagattt acttaaaagt ttgaaagctg cttgtagaga 60
ctacaataca atggtaaaac tttttccac aagagcactc gag 103

<210> 709

<211> 463

<212> DNA

<213> Homo sapiens

<400> 709

gaattcggcc aaagaggcct agtgacaggc agccttagtg agaatgaccc acttcgtttt 60
aagcctcatc ccagcaatat gatgagcaag ttgagctctg aggatgagga ggaagatgaa 120
gcagaagatg accagtctga ggcttcaggg aagaaatctg tgaagggagt gtctaagaaa 180
tatgttcctc cacgcttggg tccagtacat tatgatgaaa cagaagctga gcgggagaag 240
aagcgtctag aacgagccaa gagacgggca ttgagcagct ctgtcattcg tgaacttaag 300
gagcagtact cagatgctcc agaggaaatc cgtgatgctc ggcaccccca tgttaccgc 360
cagagtcagg aggaccaaca caggattaac tatgaggaga gcatgatggt gcgtttgagc 420
gtcagtaagc gagagaaagg acggcgaaaa cgagcggctc gag 463

<210> 710

<211> 167

<212> DNA

<213> Homo sapiens

<400> 710

gaattcggcc aaagaggcct atttttgttt attcttccat agtctagatt tgccaaatga 60
 aggctttgca cttcttcttt ctgaatcttt ctgactttgt ggtggggaaa gaagatgatg 120
 aggcaggtcc atccacacagc tggaggcttt ctgagagcag tctcgag 167

<210> 711
 <211> 112
 <212> DNA
 <213> Homo sapiens

<400> 711
 gaattcggcc aaagaggcct actgaggag gctgcaggc tggctctaga gtttcccttt 60
 tcagtcttaa cctggtgacc agcttccaca gaaattggca tggtgactcg ag 112

<210> 712
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 712
 gaattcggcc ttcattggcct atttttagta attgtacatt tttcattcta gagttttcta 60
 taaatttgag gcttgccttc tcaaaaaaga aactatgcag ccattgaatg aaatgtcttt 120
 ggggtacggt gtgactggaa tgtttgtag aaatttggtc acactatcaa atattgatat 180
 cttggagcca gcagaagagc agattttggg aggtggtaat aacaaaattt aatttcttcc 240
 caacaactta attttctcat ttattttaca gaatagtagt gaaatatttg atgaaacttt 300
 gtattttggt agcactacat agaaaatgtg ttttagattt atgatgatca tatttctcac 360
 caatgtaatt tcagtctcag cagtgtattt caaacttagg gaaagggaca gactcgag 418

<210> 713
 <211> 305
 <212> DNA
 <213> Homo sapiens

<400> 713
 gagcatattt ataatagctt tttaaaaag tttttgtttg ctatttccaa catctttgtc 60
 atcatttggc ctgtttatat tgactgactt atctgctgag tatgggtcac agcttccctac 120
 atcttaacgt gtttagacac tttttattct atgctacaca ttgtggatgc tacttttttg 180
 agattctagg ttcatctgct ttgaaacagt ttttctcccc tctttttgtt gggctgtcag 240
 ctgttacttc ttgtagctgt cagaatactt gcctctggct actatattct ccaccccccc 300
 tcgag 305

<210> 714
 <211> 316
 <212> DNA
 <213> Homo sapiens

<400> 714
 gcgattgaat tctagacctg cctctccccg tcgactgtct ttcttttaaag caactgcaat 60
 ttcttccctt acttccctcac tgtctgttgc tataatttgc ccattgtgaa ccactgtgta 120
 attctgtctt aggtattcca tgaatccatt cacatcttca ttaagtact cttttttctt 180
 tttgttcttt ttatgttttg cttgggggtgc atcatttttg agggatagcc tattggcttc 240
 aagttgttta cgctttggta ggttttggct tgttccctca aaggatccct tcttcatgtc 300
 ctcccatgaa ctcgag 316

<210> 715
 <211> 374
 <212> DNA
 <213> Homo sapiens

<400> 715
 gaattcggcc ttcattggcct agtgagaagt accatattat tcccttatac tatataatat 60

aaagagaaca ggtattcaaa ctggaatata aaagtaatga agccttttta tgcattgcac 120
 tcatcattcc ctcttcacaga ggtggtgacc tgcagccatg atggaaagt ctctctgccc 180
 ctctgcccctc tgaggatcatg tctggatctg tgccattaga acttgggcct gttgggagag 240
 gagggcggagg cctgaaagca gtttacataa agctttcagt aatgggttggg ttttaaacag 300
 gcttgctatg tgctggtagc ttctttgtgc atcttgccata gacaattaaa aatatttgct 360
 ccatgtccct cgag 374

<210> 716

<211> 369

<212> DNA

<213> Homo sapiens

<400> 716

gtcttttttaa ggatggtgct gctccactgg tgcctgctgt ggctcctggt tccactcagc 60
 tcaagggaccc agaagttacc caccgggat gaggaacttt ttcagatgca gatccgggac 120
 aaggcatttt ttcattgattc gtcagtaatt ccagatggag ctgaaattag cagttatctc 180
 tttagagata cacctaagag gtatttcttt gtggttgaag aagacaatac tccattatca 240
 gtcacagtga cgccctgtga tgccctttg gagggtgaagc tgagcctcca ggagctgcca 300
 gaggacagga ggggggaagg ctcagggtgat ctggaacctc ttgagcagca gaagcagcag 360
 atcctcgag 369

<210> 717

<211> 587

<212> DNA

<213> Homo sapiens

<400> 717

gaattcggcc ttcattggcct agggacatct tgggtgagatt taggtgaata atagttttaa 60
 aatagcaaca ccagctgcca ttgacagagc ttgcaagcca ggcccttccc aagtgtgac 120
 gcatttcac ctcaggcaac tttatggggg aaacaattat tgtcccgttt cccagatgag 180
 gtaactgagt cctcagcatg ttttcagcca gcctcacagc tgtcccacc cctggcctcc 240
 aaacagaggg gctggcttac catttccaca aagcagtgtg aagctggaac aggtgaggag 300
 ctctgagttt cgyccgtgtg ctggggagtg ggctcaggag acacgctggg ctgtgggttg 360
 gcacactgaa aggtacaggg cggctgagtc acagacccc ctctgggctg gcaacagagc 420
 cgtccacccc acacctgtag gtatgccaac gagggccggc tgaggccatc tgcagcctgt 480
 gtgctgccag cagcggggcg aggcaggaag gggcctctg cccgggtgcc cctgctggcc 540
 aggtcctccc cactccccc agggaggacc tccccacct cctcgag 587

<210> 718

<211> 599

<212> DNA

<213> Homo sapiens

<400> 718

gaattcgcct tcatggccta cctgectgat ggctctctctg acaaagttac tgggccagc 60
 aaaaggaaaa gggaaactgct gtgtcaggcc catcgagac gtaaaatata cctcttgaa 120
 aaaatagaca taacaaaaac ttaagtaaaa aaaataaata aaaagactaa atgtgcatgt 180
 ttgagatttt tgtccttctg cctcttttctg gtccatgggc ccattgtgtcc gtggagtgg 240
 tctgaccatt ccagggtgaac ttttaaatca cccctctgca ctttggaatg ttggggacag 300
 agctgtttcc ttcagactca ttgaaaaatg accagccaac tgtggccatt ttcttctcct 360
 ataaaggctg ggggttctaag catttgtttc atggtgaaaa gtggattcaa cctgctcttc 420
 ttcttctctg gtagtcaact ttttttactt ctacctctgc ttactcagct gtctaaaaac 480
 gaaaaatgct cattctgata cacaatacta gccatttctt gaagacattt tttttactca 540
 atcttaaatc gatcacatgg ctctgttctt cttcatttct tttctgcaat cctctcgag 599

<210> 719

<211> 508

<212> DNA

<213> Homo sapiens

<400> 719

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gaattcggcc ttcattggcct agcattgttt agctttaaaa tgcattcttc tgagcttttc 60
tccccattaa caccagctgc cttacatcct cttcttacct ttgattttta tccccatt 120
gatcctgctt cattcccagc agtcagcccg tcgcaggcac cgagagggtca aggttcttgg 180
gtccacaata tttccagact ccacacaacc cttcagggtc tggcctgggc aaccagctga 240
tgcggtgagc ttttctcacc atctcctgtc ttcacttcag atctgtcgcc cactgtgagg 300
ggattcctgt ctcacccatt gcctctctgt ggggtgcttt tggacttggt ttagccacag 360
agcacttctt gtcagaaatc gggaaactac tatgtgttac ttactgtctc ccacttcccc 420
caccctgggt gtctgagaaa ctctcagggg tcctcaaaga acagtttgaa aagccagtct 480
ctttgcccct acatcagcct gcctcgag 508

```

<210> 720

<211> 358

<212> DNA

<213> Homo sapiens

<400> 720

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gaattcggcc ttcattggcct actctttcaa atagatttca ggcctctaga gtctttcaac 60
cctcacattc aggaataatt ttatgtaaatt tttcatgctt tataatgttc ttactttttt 120
ctattcaatt ttgtctatat attgatgatt aagatgtatt ttatttattt ttatccatag 180
ctttttccat ataagtatgt atcttagggg cagaactgct gaaagagaca aactcagcca 240
aaaacacttg gaaagcatat tttgggtatct gcattgcttt gcatacttaa attttcccat 300
aaagtaataa agtaaaatgg ttgcagcagg aaagaagttc atcttcattg ctctcgag 358

```

<210> 721

<211> 298

<212> DNA

<213> Homo sapiens

<400> 721

```

gaattcggcc ttcattggcct actttgtcct tgtttgtttt ctttcaatag tcaggtcctt 60
cttccatagg gctgctgcag tttgccgggg gttcacttca ggccttattc atctgattca 120
ctcctgtgcc tgcagatagc attcaaggag gctgaagagc agcaaagatg ggtgcctgct 180
ccttcttctg ggacctctgc ccttgagggg gactaagctg atgttagtag gatcgctcct 240
gtataggggtg tgtctgacaa ccccggttgg agggctctac tcagttgggc ggctcgag 298

```

<210> 722

<211> 488

<212> DNA

<213> Homo sapiens

<400> 722

```

ggttttgcat ttaaattttt ttagaaagca gaattctaac ttatcttaat gatatttacc 60
tatccttttt gcaactcaca actgactttg tcacagaggt aatgcatctg cttgcaggaa 120
gtagctgtag gctcagtagc tgttgtttga gtcagattta gcagatttgg tttttaagct 180
tgtgggtttg tgctaatttg ggcagaatat atttattata tatgtgtgtg tgtatgtgtg 240
tatgtgtgtg tctgcatatg taatacatgt acataaacac acatgcatgt gttcatcctc 300
tgacacaccc acacaacacc aacaaacatt tcttctatag gctttttatc tcaactgaca 360
ctgttttttt tcccaaataa atttgacaca ggcagaaaag tgggtgaact ctcagaactt 420
ttggtgggtg gatattcatc tgaccagtga gctctgaaat ggtttcccta cacagagtgg 480
ccctcgag 488

```

<210> 723

<211> 406

<212> DNA

<213> Homo sapiens

<400> 723

```

gaattcggcc ttcattggcct atgetcaagg aattatagga ctaattctct ttttgttgtg 60
tgtattttat tccagcatcc gtacttcaaa caatagtcag gttaataaac tgactctaac 120

```

```

aagtgatgaa tctacattaa tagaagatgg tggagctaga agtgatggat cactggagga 180
tggggacgat gttcacccag ctgtagataa tgaaagggat ggtgtcactt acagttattc 240
cttctttcac ttcattgctt tcctggcttc actttatata atgatgacct ttaccaactg 300
gtacaggtat gaaccctctc gtgagatgaa aagtcagtgg acagctgtct gggtgaaaaa 360
ctcttccagt tggattggca tctgtctgta tgtcttgaca ctccgag 406

```

<210> 724

<211> 332

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (121)

<400> 724

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ggctgttgat atctacatta atgactatgt ctatgtctat gttgctgttg atgtctgtgt 60
ctctgtctat ggctatgtct atggctatgt ctacgtcact gttgatgtct gtgtctgtgt 120
ngatggccgt gtctatggct gtggctatgg ccattgtctag gtctatgtct acttctatgt 180
tctgtgtgat atctacatta atgactatgt ctatgtctat gttgctgttg atatctgcgt 240
ctgtgttgat ggccatgtct atggctgtgg ctatggccat gtctaggtct atatctactt 300
ctatgtgtct gttgatacct acatttctcg ag 332

```

<210> 725

<211> 302

<212> DNA

<213> Homo sapiens

<400> 725

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gtcaacccaa cacaggcatg ctcatctgga aaaagttttt gtctcgccca gccttgccat 60
ttatcctaag gctgcttcgg ggcttgcca tccagcacc tggcaccag gttctgattg 120
gaactgattc catcccgaa ctcgataagc tggagcaggt gtccagtgtat gagggcattg 180
ggaccttgge agagaacctg ctggaagccc tgcgggaaca ccctgacgtg aacaagaaga 240
ttgacgcagc ccgcagggag acccgggcag agaagaagcg catggccatg gcaaaactcg 300
ag 302

```

<210> 726

<211> 588

<212> DNA

<213> Homo sapiens

<400> 726

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gaattcggcc ttcattggcct accagagcat cacagtggcc attgatgtag tctcccagca 60
cctgatgatg caacgcagg gtgagaaaat gggccgcttt cagggtcggg ggaaccaga 120
gggacaagg gtagttgctt ttggccaaac caaggacatc atcaggcaga tctgcaggc 180
tgatggactt cgcggcttct atcgaggcta tgtggcttca ctgcttacct atatccaaa 240
cagtgtgtgc tggtgccct tctatcactt ctatgcagag cagctctcct acctgtgtcc 300
taaggagtgc cctcacattg tctttcaagc tgtctcggg cccctggctg cagccactgc 360
ctccatcctc accaatccca tggatgtcat acgaaccgt gtgcaggttg agggcaagaa 420
ctccatcctc ctgaccttca gacagctgat ggcagaagaa gggccttggg gcctcatgaa 480
gggcctctcg gccagaatca tctcagccac acctccacc attgtcattg tgggtgggcta 540
tgagagcctc aagaaactca gcctccgacc tgagctggtg gactcgag 588

```

<210> 727

<211> 290

<212> DNA

<213> Homo sapiens

<400> 727

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gaattcggct tcatggccta taggcatga agccgaaca aaacagctgt atgtaatcat 60

```

tgccactagt tccatctaga actcctttct agtttgttat ttttaaaatg tttatacata 120
 aaaccaccaa aatacatagc ttcgacaaga tgggaagtta tttctctctc ccataacagt 180
 gcagtgatag tcagctgggc caggccaggc aaggggctgg tccatgatgt catcaggcac 240
 ccaggttcct actgtcttgc catgtggcca cagttagcaa cttgctcgag 290

<210> 728

<211> 366

<212> DNA

<213> Homo sapiens

<400> 728

gaattcggcc ttcattggcct agggggattg cagagctgtg atcagagcct caatcagagt 60
 ctgggcagga gggtcggagg gcagaagtgt aagctccctc tgccctgcac cagccttctg 120
 aaacctcctg tggacggagt cactctggat aagggatgga cggcagggtg acataagtcg 180
 tgcaactctg gcttctggga gtcccaaggc acagaggcct gtactgcctg gcaagcctct 240
 gccctctaaag ggcagcagac aggggaagaca gtggtgtgga gggccagat ccaacttgcc 300
 tctgtccac ggagaccggc ccagctatgc ctggggaagg ggctctgctg atcgagtcct 360
 ctcgag 366

<210> 729

<211> 388

<212> DNA

<213> Homo sapiens

<400> 729

gaattcggcc ttcattggcct aattgaattc tagacctgcc tcgagacatg cccggtcgct 60
 gaagggtccct ctacagcggg gccggggagt ttcccgccgg cgaagacttt gaggccttgg 120
 caggacaatt gtcagcgtag tgacctcctg ttccacagta gaggcacagg ttcagctttc 180
 tgcgtctttc tttttcttcc tgcgtcaggc gcatgcgggc acctcccacc ggctcgggtg 240
 gatctacctg gtggtggtt gcaatgtgag gcaacaccag cgcccggggt ggcgagcgtg 300
 gcttgcgagc tgcagcagcc ctggccagcc ttctctcaat gtgaatgcac tgcccaatca 360
 gagcagacag cgacttggcg acctcgag 388

<210> 730

<211> 351

<212> DNA

<213> Homo sapiens

<400> 730

gaattcggcc ttcattggcct atgactgaat ctattttaag atctaaatta gcatctcttc 60
 agacacacgg aacagctgct catttcaatc actcttctca tggagaaacc gaagaccaga 120
 ggggacaaga ctagtccaag ggcattggga gtcattgggt ggctggggtt ggaattgcaa 180
 tgtcctgact ttccccgtca gcacactttt gtgtaccggg taaaaaccac taccaccatc 240
 atcattgccca ccatactac catcatcagc actataatca tcactaccac tatcgtcacc 300
 atcatcacca tcacatcgtc atcaccacca ttatcaccat catcactcga g 351

<210> 731

<211> 401

<212> DNA

<213> Homo sapiens

<400> 731

gctcgagcct tatcaccatt ttgttctttt atagttgcta atgttttagt cagtcgcgca 60
 cgtcaattt caacataaat cttgccttcg gtaaccattc gtagagtatc aattaatcga 120
 agtttgatag gaaggctgtg gatttctcga acataagtac agcactgttg aaccattttg 180
 gcaacagctt gttttaactg actccgctt ttggacaaaa gcataatatt ttcattaagt 240
 aaatcccatc ctttagcctc atagcacatc ttactactg caactaagat acgggatgtc 300
 gataccatat cggaagcagt acgagtctgc tttccagag agagaagggt ttcaatgact 360
 tcttgaagtc ttcttctctt ggctagcttc gcacactcga g 401

<210> 732
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 732
 ggtccgtagc tcattgctgta acattactct atcaatcaac agtgcctctga tatgttggtt 60
 ttccccatgg agccgatttt ccattgattt ctttactaag ttgaagcttt tccatcgga 120
 gtcaaattca tgcttgtag atccttgga ttgtaaaagg tctccaataa tctttataat 180
 aagaacaat gacttagtat catcttctga attatcaagt atgtggttaa gaagtttcct 240
 tataactgta gcaattactt ctcggtggtt ctctcgag 278

<210> 733
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 733
 gggccctcat caacttcttt gtgtggagct cccagggtaa aaagaccatt atcgagtgc 60
 tgtatatagg ttccctcatc catttcaatg gctatgggtt ctgaaatttc accaaagttt 120
 gttactgtcc accagattcc aacatatcaa gctgggtttt ttcattcttct tctcttttct 180
 ttttcttctc tttgttcttt ttctcttctc tgccacttat tctggcatcc tcatgagccc 240
 agactcctcg ag 252

<210> 734
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 734
 gaatgctgag tctggggaca ggtagagaat ctcttcaaga aaaggaaaaa gcctccagaa 60
 aaggaagctt tggagagatg ggggaacaaa ctgtgaaagc agtcagaaaa ttaagtcaac 120
 agcaggagtc agtttgtccc agggagagca cggctccctgg gcactccagc ccatgtctag 180
 acaattcttc atccaaagct ggtagccaat tcctatgcaa tggaggaaagc agagcaacgc 240
 aggtgtgtcc acaggaagat ctcaggccgg aggcacagga agcaaacctt gccaaaacag 300
 aaatctgtcc ctgggaggta aatgaaagaa caagtctcga g 341

<210> 735
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 735
 gaattcggcc ttcattggcct aggtggtagt atagaaagg gatataaacg aaaaataaaa 60
 tactgaattg ccacatattt agagtctgtg ttaaaattgg aaagatgta gatgacttca 120
 taatttttgt attgcttctt caagtcaaaa cagcgtgttg cttccaggat tttggtgaac 180
 acagcagtgt gaggtagtgc gcttcggtgc tcatagaaga atttcaaata cttcagagca 240
 ttcgttttca tggaaaccctt cctctcccc tcgag 275

<210> 736
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 736
 gaattcggcc ttcattggcct aagacctgcc tcatctctg gcctctgagc ttttccctgc 60
 ccattcattc tccatccaga gccagggcac caattctatc ctgacagcct tctgctagag 120
 ccattgctta gagatctcat ttggggatac acgtttgttg tgtggccatc atgtgtggct 180
 gcatggagtg accgaagtga atcatctgcc tgcaagcgtt tacactcagg tgagcacaat 240
 tcacatactc cttggcttag cacatgtcac caaacttaca tacgtcgaac ctcgag 296

<210> 737
<211> 327
<212> DNA
<213> Homo sapiens

<400> 737
gaattcggcc ttcattggcct agtgccagct tgctaatttt cacagaagtt gatggcaatt 60
cttcacatgt aaacagtgcc agtccacaga acctttatat attttttgaa gccagtactg 120
tgctctgcat ataacaaaagc tgcttcaagg atgagacctt tttctaaaag catgtaattgt 180
gagaagccgg cctgccttat tttctttttt cttttttaat gattaaaaat agtttgtggc 240
aaggcacggt ggctcggcct cctgaggtgc tgagattaca ggcgtgagcc actgtgccag 300
cttgctaatt ttcacagaag gctcgag 327

<210> 738
<211> 225
<212> DNA
<213> Homo sapiens

<400> 738
gaattcggcc ttcattggcct aggtcttttag gagttgctta ataattccagc caacataaca 60
ttatttttcaa gggaaacctt ccagaatgcc aaacactgcc ttatgagcta ttggtaactt 120
aacttttatt tatttgagta tcacacttca catataaatt attcacacaa atactcttta 180
gtcagttaac acagtgttgc tggagatctt acagcagtc tgcgag 225

<210> 739
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (105)

<220>
<221> unsure
<222> (244)

<400> 739
gtttctctgtt catttcaggt gttttattga gcattctgatt tgtgtcagca ccatgtaaat 60
atgatgagga gtattttgaa tagactttac attcaccaga aaatngatag tatttggttaa 120
accaatgcat ccattcaaaa tagaggcaga gtaaacagcc taagaaatga tttcctttct 180
acagtctgct aggagaaaaga ggtgagaggg gagtggttga tgattttaat caagagtaaa 240
gggnacattt attacatgaa atctgacttc agttgtgcaa aggtatgtta agacattaag 300
acaattgctg gaagggttca aatatgtgta cacacacata gagctacttt tgtgtgttta 360
tttatatgta tatttcacaa aggtcaatgc ccacagagga aaatgattat ttttaacttct 420
gggttatcat ctgcgacggg tctcgag 447

<210> 740
<211> 338
<212> DNA
<213> Homo sapiens

<400> 740
gaattcggcc ttcattggcct actttttctt tagatgtgta cctcatttgc tgaagttggt 60
ttctgcctta aatgagattc acattcttca agagtctgcc catcctttga ttgtatatgc 120
atcttttctca ttgaaattca ttgttatact ctctcctgct tctgttttagg cagtctgctt 180
gggaaggagg ctaagacttg ccatgggagt tttgactcag gattttcagt gaaagtagag 240
gagtggttag aaagtatttc tgggctggat atcctggaga ctgctctact aggaatgaat 300
gtcttctttt tttccccagc cacttgcctt gctcgcgag 338

<210> 741
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (152)

<220>
 <221> unsure
 <222> (161)

<220>
 <221> unsure
 <222> (177)

<220>
 <221> unsure
 <222> (268)

<400> 741
 gaattcggcc ttcattggcct acttgcagtg aagcagagat tgtgccactg cactccagcc 60
 taagcaacag agcaagacac cggctcagaa aaaaaaaaaa atagttacaa agttgcagaa 120
 aatttaaatg agttgctcag aggcttggag cntgaaaccc nataaaaatg gaagttngag 180
 tgcgtgtcat ttctctccaa gctagttaat catttctcat taagttctac atttagtttg 240
 taatgtgcat gttttattta tagctcangg tgataaacia gacaaagtca agcagaaagc 300
 gctcgag 307

<210> 742
 <211> 487
 <212> DNA
 <213> Homo sapiens

<400> 742
 gaattcggcc ttcattggcct aggcgggcttt gagtcacatg gatcagcttg acctccagtg 60
 gggctggaga ctaagggttag ccacatgggc atgcaacccat ggaaccccag taaaaacgtt 120
 ggacataaaa aatagagtga gcttccctgg ttggcaataa tccatgagta tggtcgcaca 180
 ccagtgccac caggaagggtg tcatttttca caactctaca gggacaggac aattcaaac 240
 tccaacattt ggaacttccc cgaactctgc cctatgcacc tctacccttg gctcattcta 300
 atctgaatcc ctaaactgca ataaactcta actatgggta tgagagcttt caatgagttc 360
 tggtagtgtc actttttaaag gaacaggatg gaaactccag tgtagctcta gggacttgcc 420
 caaccctacc gcaaatacca agttcttaag agttctccgg cagttcccaa ggtgcactcc 480
 actcgag 487

<210> 743
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 743
 aattcggcct tcatggccta ataaatttga aactttcaac aacatatttt tcagccataa 60
 aactttcatt aagttttaag gaacagcttt ataaaaaagt tagttttcta cattctttca 120
 tctgatatag taaaatgcag ttcgatttta taatttcatt tattttcttt ttttttgctg 180
 acaccgggca ctttattagt ggggaaactc gccttgggtct ggcagagact gggatcaaca 240
 ggaccagcac ccatctcgag 260

<210> 744
 <211> 523
 <212> DNA

<213> Homo sapiens

<400> 744

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gaattcggcc ttcattggcct aaagaataat tatatgagtt aatttttttc tttttttggg 60
ggcttgctac tgattagcca aaggcagggt ggagactggc gggtttgaaa ttagagacac 120
ctgtgctgtt ttgggaagtt gaggctcttg acctaggatt tgctgaagtt ggtgcaggag 180
aggtcagtgt aggttaatat tttcagagct caaagcaagt gtggattggg gttgtttata 240
ggtgcagttt tgcttgatct ctgtatctgc aaatggagta aaaaagtaca gtactgctgt 300
tttgggaaac ttctgcaaaa gtccctgagc caatgcaaat taattttctt caaaaatacc 360
aagaaaatc cccatttggc tgtttcacct gggtgagga attgactctt gtcattatgc 420
ttgtaaagaa attaccagc tgggtgtggt agttcatgcc tgaattcca gcactttggg 480
cggctgaggt ggatgaattg cttgaatcca ggaatttctc gag 523

```

<210> 745

<211> 275

<212> DNA

<213> Homo sapiens

<400> 745

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gaattcggcc ttcattggcct agtaggatta ttttcttctt ggaagctgta gtggggatct 60
tttcttgcga ttttctaact cctagaggct gtctgtatct cttggctcat ggctcccttc 120
taaagaagta aaaaggcctg tatttcagat ggaatacttg atctgtgtaa tccatcaagt 180
agataaaacc acttttttgg tttattgaaa caagaccatg aaagtaaagt tttgaaaaag 240
aaaacaaatt ttcaattcga atccccaggc tcgag 275

```

<210> 746

<211> 688

<212> DNA

<213> Homo sapiens

<400> 746

```

gaattcggcc ttcattggcct agtttctgtt tattttctat cagagcgaat ataggaaaag 60
aggattccag gaggtagtca ccccaaacat cttcaacagc cgactctgga tgacctcggg 120
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aactcctggc ctcaagcggc ccttcaacct tggtctccca aagcgtggg attacaggca 600
tgagccactg tgcccagcca gatctccaga tctgtgggca ttcagtaatg gtactgggat 660
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<210> 747

<211> 621

<212> DNA

<213> Mus musculus

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 <222> (612)

<400> 747
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 caactgtgtca tcgaagtgtt cgtcttcttc tncaacagggt ggctgaagga nacttgggtc 120
 tgctgtactt gttttcttcg atgtntctca aataccctcg gccatgatct tctcgcggtc 180
 ttttaacgcc tctcttttta tctccacett tctgttctgt tttgccgtct cctcccgcc 240
 gctgttggtc ctgcntcgcc cctggcggtc ccaccgtcac cgcgaagagc gangtggggc 300
 cgctgntctt gcccgcggcc tccttgccgg caccacgtc ctgggaangc tgctgctgcg 360
 ccgcccgtgc cggcggttgg gactgctgct ccccgtagc gttctngtcg cccgcgcct 420
 cctcctcgt cgccganctc gtcttcccc ctccctggaa gccctggtcn ntcgcngttc 480
 tcgtntnctn gannctgctt ctntctctt ccategnenc nggnntnanc cgccccncc 540
 gcccngttct cctcnccan ctncctntn gtngccnttc cananngng atnaccntta 600
 ggcntctntg gngcgaaatt c 621

<210> 748
 <211> 295
 <212> DNA
 <213> Mus musculus

<400> 748
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 tgaccttcta aagcggacac accaagaaga aaagaagaaa gtggaagaca agaagaagga 180
 gcttgaggag gaggtgaaca acttcagaa gaagaaagca gcggctcagt tactacagtc 240
 ccaggcccag caatctgggg ccagcaaac caagaaagac aaggatctcg tcgag 295

<210> 749
 <211> 395
 <212> DNA
 <213> Mus musculus

<400> 749
 gaattcggcc aaagaggcct acgatatttg ctgcgacccg caggcgctat ccgctgccgg 60

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gttcttggcgc gccctttcag ttctgcttgc tgctccgcacc gctgcgttac ccggaaccgc 120
cgggccgaac agcatgacgt ccgcttttga gaactacatc aaccgaactg ttgccgttat 180
tacatcagat gggagaatga ttgtgggaac actgaaaggt tttgaccaga ccattaattt 240
gatttttggat gaaagccatg aacgagtatt cagctcttca cagggggtag aacaagtgg 300
actaggatta tacattgtaa gaggtgacaa cgttgacgtc attggagaaa tcgatgaaga 360
aacagattct gcgcttgatt aggggaacac tcgag 395

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<210> 750

<211> 441

<212> DNA

<213> Mus musculus

<400> 750

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ctcaactcaa ccacaatcat ggctcagatg atgactctga gcctccttag cctggctc 120
gctctctgca tcccttggac ccaaggcagt gatggagggg gtcaggactg ctgcctta 180
tacagccaga agaaaattcc ctacagtatt gtccgaggct ataggaagca agaacca 240
ttaggtctgc ccatcccggc aatcctgttc tcaccccgga agcactctaa gcctgag 300
tgtgcaaac ctgaggaagg ctgggtgcag aacctgatgc gccgcctgga ccagcctc 360
gccccagggg aacaaagccc cggctgcagg aagaaccggg gaacctctaa gtctggaa 420
aaaggaaagg gcaaggtcga g 441

```

<210> 751

<211> 243

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (46)

<400> 751

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gaattcggcc aaagaggcct aaaagaaat ttaaagcatc cagagnatag catattat 60
gagatgaaga tgctaaaaga gaagagacag caatcagaaa agaccttcat gccaaag 120
cgtagcttac aaagcttggg ggcaagtctg catgctatgg agtccaccag agagtct 180
aaagcggagc taggaacgga tttgctttct caactcagtc tggaagatca gaaaaga 240
gag 243

```

<210> 752

<211> 507

<212> DNA

<213> Mus musculus

<400> 752

```

gaattcggcc aaagaggcct agtggatctg acgacaccaa aagggtcag gatgctact 60
ttgcaagctc tctgttctct cttaatcctg cccagtcacg ccgaagatga cgttacta 120
actgaagagc tagctcctgc tttggctcct ccaccaagg gaacttgtgc aggttggat 180
gcaggcatcc caggacatcc tggccacaat ggcacaccag gccgtgatgg cagagatgg 240
actcctggag agaagggaga gaaaggagat gcaggtcttc ttggtcctaa gggtgaga 300
ggagatgttg gaatgacagg agctgaaggg ccacggggct tccccggaac ccctggcag 360
aaaggagagc ctggagaagc cgcttatgtg tatcgtcag cgttcagtgt ggggctgg 420
acccgcgtca ctgttcccaa tgtaccatt cgctttacta agatcttcta caaccaac 480
aatcattatg acagcagcac tgtcgag 507

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<210> 753

<211> 408

<212> DNA

<213> Mus musculus

<220>

<221> unsure
<222> (97)

<220>
<221> unsure
<222> (118)

<400> 753
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caaacatgtc gctctccacg aagctgccag gatccancag aagactgacg cgctcccngg 120
ctgttagctt ccctcgcttg tgctgcgcgt cgatgcggcg ctggcctcct cccagcaacg 180
ctgcatggcg cttgttgctg atgcgctctt taactgaaac cggctggctg caaaggccgc 240
gggtcgtgat gccgaggccg caattcagaa cggtagacct cgctccagcc gccaccgcc 300
gaatcctaata cgccgccgcc attttttttt tttttttttt gactgccagc gagacacaca 360
ctcccctccg ggaaacttat ttttatcagc agccattacc ttgtcgag 408

<210> 754
<211> 431
<212> DNA
<213> Mus musculus

<400> 754
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tgatgccttt gtcagcaggg ctgcctagcc tccccaacct cccagcctc tccaacttca 120
acctccctgc tccgcacatc atgccagggg tcggtttgcc agagctcggg agcccgggtt 180
tgccacctct tccctccttg cctccccgaa acttacctgg cattgcacct ctccccatgc 240
tgtccgactt cctcccgta ttccttttgg ttccagaggg ctcttctgca gccagcgag 300
gggagccgct gtcttccctt cctgccatgg gccaccttc tgacctgtc atgactactg 360
caaaggcaga cgcctcttcc ctcaactgtg atgtgacgtc tctgtcttcc aagggtccca 420
ccctagtcga g 431

<210> 755
<211> 441
<212> DNA
<213> Mus musculus

<400> 755
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ctcaactcaa ccacaatcat ggctcagatg atgactctga gcctccttag cctggctcctg 120
gctctgtgca tcccctggac ccaaggcagt gatggagggg gtcaggactg ctgccttaag 180
tacagccaga agaaaattcc ctacagtatt gtccgaggct ataggaagca agaaccaagt 240
ttaggctgtc ccateccggc aatcctgttc tcaccccgga agcactctaa gcctgagcta 300
tgtgcaaaac ctgaggaaagg ctgggtgcag aacctgatgc gccgcctgga ccagcctcca 360
gccccaggga aacaaagccc cggctgcagg aagaaccggg gaacctctaa gtctggaaag 420
aaaggaaagg gcaaggctcga g 441

<210> 756
<211> 658
<212> DNA
<213> Mus musculus

<400> 756
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cgagggtgggt ttctggggag cccccacccc catatcctgc agtgtagtcg gctccggcc 120
actcaattcc ggcgagagcc gatcgtgtc tggattcggc cgcgggatgt gggcgcaagc 180
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tttctcagg aggcaccatg ttctcaccg ctgtcctcct ccgcggccgc attccgggca 300
ggcagtgat cggaagcac cggcgccgc gtaccgtgtc ttccaagcg aaggagagca 360
tgatccgtcg cctggaggcg gagggcgaga accactactg gctcagcatg ccctacatga 420
cagcagagca ggagtgcggc cagcccgccg agcgacgggc ccaggctttt gaagccatca 480

aggcagcggc cacttccaag ttccttaagc atagatacat tgcagaccag ctagaccatc 540
tcaacatctc gaagaaatgg tcctaaccct tcaagattat ggataccgga ctgctctatc 600
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<210> 757

<211> 265

<212> DNA

<213> Mus musculus

<400> 757

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cactgtaggt atggacaggg aagaaaggaa gaccatcaat cagggtcaag aagatgaaat 120
ggagatttat ggttacaatt tgagtcgctg gaagcttgcc atagtttctt taggagtgat 180
ttgctctggg gggtttctcc tcctctctct ctattggatg cctgagtggc gggtgaaagc 240
gacctgtgtc agagcagaag tcgag 265

<210> 758

<211> 354

<212> DNA

<213> Mus musculus

<400> 758

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tggattttga tgctgctctc aacaatacca ggccccgggt tcacagcagg tgcccaggga 120
agctgttccc tgcgctgcgg ggcacaggat ggactctgtt cctgtcaccc aacctgctcg 180
ggccttggca cctgttctga agattttctg gactactgcc tagagatttt accctcctca 240
gggtccatga tgggtggcaa agacttcgtg gtgcaacatt taaagtggac tgacctact 300
gatggggcca tttgcagggt taaggagagt atccaaaccc ttggctatgt cgag 354

<210> 759

<211> 350

<212> DNA

<213> Mus musculus

<400> 759

gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcctgtgctt ggcgctgggc gctgccagcc aggcggagcc cctgcacttc aaggactgcg 120
gctctaaggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
agctgcacaa aggcagctcc tacagtgtca acatcacctt taccagcggc actcagctcc 240
agaacagcac ggccttgggc cacggcatcc tggaagggat ccgggtcccc ttccctattc 300
ctgagcctga cggttgtaag agtggaatca actgcccccc agaagtcgag 350

<210> 760

<211> 392

<212> DNA

<213> Mus musculus

<400> 760

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ttcttctctc cattatatca accccatggg caccaatgaa tacttgtcag ccatctgggc 120
agtgggacag atcattcagg actacgacag tgataagatg ttccctgctc tgggatttgg 180
ggcccagtta ccaccagact ggaagggtgc ccatgagttc gctatcaact tcaacccac 240
taaccctttc tgetcaggcg tggatggcat cgcccaggcg tactcagcct gtctgcccc 300
cattcgcttc tatggcccca caaacttctc cccgatcgtc aaccatgtgg cccggtttgc 360
agcccaggcc acccagcagc agaacagtcg ag 392

<210> 761

<211> 332

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (5)..(8)

<400> 761

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gagtnnnnag acagctagaa aatacagagc acatggagtc atctgggtta gaaaaagaag 60
aggcactagc cagctgggaa caagaaggac attccactcc actgcaggac cagtgccag 120
actgggcagg gaaagcagag gcccaggatg cattggggga ggcaactgac gacccagct 180
tctgcagccg ccacaggagg gggaaagagt gcttgccctt gcacccaaac aaggcccatg 240
gctgcaaaca gccctttcca tcaaatccaa gagtgtcatc tgaactgtca caaataacag 300
ttgatcatga agagcagagt gaccatcaca ga 332

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<210> 762

<211> 372

<212> DNA

<213> Mus musculus

<400> 762

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ctccaacagt gtcttccctc cctttctccc ttctctctcc tctgtgccc ctccctgaaa 120
gggctcaacc ttgcgtgcct gtctgttctt aactgtcccc agtcacatat cccatgtgca 180
acactgacca cacagtgtct gtcaccacgg ccagcactgc agctcgcccc agcacaagcc 240
ccctggctg gcttggacct gagtgtttgc tcccttctg cactcctgg aatctgcaat 300
gtggcgccat cttgcttcta tgcagggcac ccgtttttgt gcatttcgct ttgttttccc 360
ggagtggtcg ag 372

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<210> 763

<211> 387

<212> DNA

<213> Mus musculus

<400> 763

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gaattcggcc aaagaggcct aggacttgtt tcggaaggag ctgactggcc aatcacaatt 60
gcgaagatga aggtctctgtg ggccgtgctg ttggtcacat tgctgacagg atgcctagcc 120
gaggggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccagggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgatgga ggacactatg 300
acggaagtaa aggtttacaa aaaggagctg gaggaacagc tgggtccagt ggcggaggag 360
acacggggcca ggctgggcaa agtcagag 387

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<210> 764

<211> 467

<212> DNA

<213> Mus musculus

<400> 764

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gaattcggcc aaagaggcct aggttttatg ataaggaaga gtgccagaga attgcaaaac 60
taatgaaaaa cctcactcag agcgaacagt tgaaagcctg tcatggagcc ggatcctccc 120
ccgtgacctt gagctcagga gagggccaag aagtagatat cctgcagatg ctcaccaagg 180
ccaaggatga gtacaccaag tgtaagacct gttccgagcc aaaacagatg accaattcct 240
ctgccatctg tgacaacctt aaacttatca aacctgtccc cgtgagacct agcagcagcc 300
agaggctgca aggaccgcg cccagcaaga cctcggacct tgagcctcag cacttatctt 360
taacagcact atttgggaaa caagacaaag ctccctgtca ggaaactgta aagccctccc 420
ggacctttgc ccaccaccac caccatcacc accagcagct tgcagag 467

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<210> 765

<211> 487

<212> DNA

<213> Mus musculus

<400> 765

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gaattcggcc aaagaggcct aggaacatta tctggacagt attgaaaacc tcccgtttga 60
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tgaaattgac aagttggcca ctgaatatat gactagcgcc cgcagcctga gctccgagga 180
gaagctggcc cttctcagac agatccagga ggcctatggc aagtgcagg aatttgggtga 240
cgacaagggt cagctggcca tgcagaccta tgagatggta gacaaacaca ttcggcggct 300
ggacacagac ctggcccgtt ttgaggctga tctgaaggag aaacagatcg agtccagtga 360
ctatgacagc tcttctagca aaggcaaaaa gagccggacc caaaaggaga aaaaagctgc 420
cagagcccgt tccaaagga aaaactcaga tgaagaagcc cccaaggctg cccagaagag 480
agtcgag                                     487

```

<210> 766

<211> 382

<212> DNA

<213> Mus musculus

<400> 766

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tctgtggggc gtgtgtgttg tcacattgct gacaggatgc ctaccgaggg gagagccgga 120
ggtgacagat cagctcgagt ggcaaaagcaa ccaaccctgg gagcaggccc tgaaccgctt 180
ctgggattac ctgcgctggg tgcagacgct gtctgaccag gtccaggaag agctgcagag 240
ctcccaagtc acacaagaac tgacggcact gatggaggac actatgacgg aagtaaaggc 300
ttacaaaaag gagctggagg aacagctggg tccagtggcg gaggagacac gggccaggct 360
gggcaaaagag gtgcaagtcg ag                                     382

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<210> 767

<211> 508

<212> DNA

<213> Mus musculus

<400> 767

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gaattcggcc aaagagccta ctgcccgtg tccatctcac ctacagctct ggtctcatct 60
caactcaacc acaatcatgg ctacagatgat gactctgagc ctcccttagcc tggctcctggc 120
tctctgcatc ccttggaacc aaggcagtg tggagggggg caggactgct gccttaagta 180
cagccagaag aaaattccct acagtattgt ccgaggctat aggaagcaag aaccaagttt 240
aggctgtccc atcccggcaa tcctgttctc accccggaag cactctaagc ctgagctatg 300
tgcaaacctt gaggaaggct ggggtgcagaa cctgatgcgc cgcctggacc agcctccagc 360
cccagggaaa caaagccccg gctgcaggaa gaaccgggga actctaacta agtctggaaa 420
gaaaggaaa ggcaaggctg aggttctccc tatagttagt cgtattaatt tcagaggagt 480
atttagaaga gaagctgaag ctgtcgag                                     508

```

<210> 768

<211> 297

<212> DNA

<213> Mus musculus

<400> 768

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gaattcggcc aaagaggcct aggacttggt tcggaaggag ctgactggcc aatcacaatt 60
gcgaagatga aggtctctgt ggcctgtgtg ttggtcacat tgctgacagg atgcctagcc 120
gagggagagc cggaggtgac agatcagctc gactggcaaa gcaaccaacc ctgggagcag 180
gcctgaacc gcttctggga ttacctgcgc tgggtgcaga cgtgtctga ccagggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgaagga ggctcgag 297

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<210> 769

<211> 310

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (82)

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<221> unsure

<222> (104)

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<221> unsure

<222> (155)

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<221> unsure

<222> (181)

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<221> unsure

<222> (298)

<220>

<221> unsure

<222> (304)

<220>

<221> unsure

<222> (306)

<400> 769

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ggtcncctgcc agccaggcgg anccctctgca cttcaaggac tgcngctcta aggtgggagt 120
tataaaggag gtgaatgtga gcccatgtcc caccnatccc tgtcagctgc acaaaggcca 180
ntcctacagt gtcaacatca cctttaccan cggcaactcag tcccanaaaa gcacggcctt 240
ggtccaccgg catcctggaa aggatncggg tccccctccc tattcctgaa acctgacngt 300
tgtnanaatg                                     310
```

<210> 770

<211> 512

<212> DNA

<213> Homo sapiens

<400> 770

```
gaattcggcc ttcatggcct aaaaatattt tgggtggcacc tcaaaactcc caatttagat 60
ttaatttaga ttaaaacact tactcttttt aataaagtta taaaattaat tattaaaatt 120
gcctattgaa gattaaaggc agtggaaagt ttattttcct taaaaacaa ttttgtcttc 180
aataagtgtg attgtgttaa tcaattatgc tattaataat acaactgcgc ctggcctatg 240
```

```

gcatctgtct tctaaggac ctccctgctt cagcctttac agagtatctt tctagcctcg 300
tctctggctc tgttcacggc cctctacaga gcatgcctct gcctttgttc tttgaggagc 360
gtgtagcctc cttcctcccc acctcaaaca tctgcgcagt tcccatttac ctctcagcct 420
gggccagtgc acagcatcaa caagctttct ctgagaaggc agaaccagct atttcttggt 480
ctgtgttctc atcatactct acacaactcg ag 512

```

<210> 771

<211> 624

<212> DNA

<213> Homo sapiens

<400> 771

```

gaattcggcc ttcattggcct aattatagct cactgtagct tcaaaagcct gggctcaagc 60
agtcctctcy tctcagcctc ccgagtagat aagactacag gcacagggtg gtgttgacct 120
cctagcctca agcagcctcc caaagtgcctg agattacagg tgtgagccac tatacccagc 180
ccagtgttat atttttgtat aatcctatga agtatcaagg cagttattat ccttgtttta 240
ctgctaagaa acttgaagtt tacagaggta aattatttgc ctaagcctaa actctgatct 300
cgaatctgaa tccaagtcc aatattcttt tcaccgtatt acaatatttt taccatcaac 360
cctccattct gtctgcacat catacaaatg agtatctcta cagagctttg agttgctttt 420
aaacaaaaga gatttttgta cccaatgttt agagttagtga ttctcggctc catttttaca 480
agattttcaag atttaatttg tcaaaaaagt tctgaaattt tcaaaagcaa agcaatttta 540
atttaattgc tctaaaaaat aagcagattt atcatttagc aattctttaa gggagagtgt 600
atcataaaac tgaatatagct cgag 624

```

<210> 772

<211> 418

<212> DNA

<213> Homo sapiens

<400> 772

```

gaattcggcc ttcattggcct aatgaattta tttatatgaa ggctctcaca gagacacaca 60
cagcacttca gtagcatttg cattcctggt taaagaatca ccaatattta aaataaaaac 120
tttctgaaa ttgggactgt catgttatcc agaagggctg gtacatccgc ccaccatgtc 180
ccctgctgg gtcaggagcc aacacaggac cctgcgtgtg agcgtgcctg acatctcacg 240
cacggccact ccagagccgg tccctgtcct tggaaagctg tgaagccttg cgttgagtgc 300
cttctcgata ctgacggctc cgtgtgaca ttctgagctc tggagtcaca ccagcgcagg 360
ggcgtggagg aactgaggtt tggaaaggaat gccagggtc gcacagcttg gcctcgag 418

```

<210> 773

<211> 197

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (40)

<400> 773

```

gaattcgcgg ccgcgtcgac catacaagca ccctggcagn tatgaagttg atgacagctt 60
tggtgaatgt ggcactaaat cttagcatta atatggataa tacacaaaga caatatgaag 120
cagaacggaa taaaatgatt ggaaaacgag ccaatgagag gctagaactc ctgctacaaa 180
agcggaaaaa gctcgag 197

```

<210> 774

<211> 626

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (46)

<220>

<221> unsure

<222> (66)

<220>

<221> unsure

<222> (68)

<220>

<221> unsure

<222> (93)

<400> 774

```

gaattcgcgg cgcgctcgac tgggaattcta gaccagcctc gagaanctag tatcccaccc 60
ttggtcncgc ctgtcgccaa tgtgcctgct gtncagcaga cactaattca tagtcagcct 120
caaccagctt tgcctcccaa ccagcccat actcattgtc ctgaagtaga ttctgataca 180
caaccctaaag ctcttggaat tgatgacata aagactctag aagaaaagct gcggtctctg 240
ttcagtgaac acagctcctc tggagctcag catgcctctg tctcactgga gacctcacta 300
gtcatagaga gcaactgtcac accaggcatc ccaactactg ctgttgacc aagcaaacctc 360
ctgacttcta ccacaagtac ttgcttacca ccaaccaatt taccactagg aacagttgct 420
ttgccagtta caccagtggt cacacctggg caagtttcta cccagtcag cactactaca 480
tcaggagtga aacctggaac tgctccctcc aagccacctc taactaaggc tccggtgctg 540
ccagtggtga ctgaacttcc agcaggtact ctaccagcg agcagctgcc accttttcca 600
ggaccttctc taaccaagt ctcgag 626

```

<210> 775

<211> 233

<212> DNA

<213> Homo sapiens

<400> 775

```

gaattcgcgg cgcgctcgac aaaataaaaa taaaaataat aataaaaacc agtcctaaac 60
caaatcttta cttagtctc tagcctcaga gtttattagt tcttagtaat gttactatga 120
aggcaaatag gagacaaatt attattctgg tttttattgt tactgccact gcaattccta 180
tgattattgc tataattccc tatttaatat gtaaacagt tacaacactc gag 233

```

<210> 776

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<220>

<221> unsure

<222> (97)

<400> 776

```

gaattcgcgg cgcgctcgac tgctagttgt acttgtagtt ttttgaggac cctccatact 60
gttttccata ntggctatac tactttactg atctttntct ttttctctaa ttttaacaac 120
tgtcaciaag tcagtttgac ttattgaact tgtataaact ctgtgcctca ataaaactga 180
atgttacagt aaggaattag gtgaaattta cttttttttt ttttttttcc aggaagactt 240
acttagttag gtagctagta gaatagtaac ctgaactcaa gaaatgtaat ttcactctga 300
taaaactgct gagtagggct atcttccctaa ttttcattaa atatttctta cttggaaaca 360
ttgaatatta aatgagacaa aaactgtaag actaacagca aactcgag 408

```

<210> 777
<211> 156
<212> DNA
<213> Homo sapiens

<400> 777
gaattcggcc aaagaggcct accacactga aattatcttc caatgaatcc caaagatttg 60
gtacaaaatag tacaattcgt atttgcttct cttcttctt tcttcagaca aacaccaa 120
aaaatgcagg tgaaagagat gaaccactcc ctcgag 156

<210> 778
<211> 535
<212> DNA
<213> Homo sapiens

<400> 778
gaattcggcc aaagaggcct aagaaaaacg ccaacttttc agacaaattt tccctccacc 60
agaatcactc cggtagagac acagagaaca gacttcttgc actccacga tgaatgagcc 120
ggaggctact tactcaactg tgagacttca taagtcttca gggttgcaga aattagtaag 180
gcatgaggag actcaagggc ccagagaagc tggcaacaga aagtgttcag tatcctggca 240
actcattgtg aaagctcttg gaatcctctg tttccttctt ctggtaatag ttgcagtgtt 300
gacgataaag atttttcagt atagtcaaca caaacaagaa atcaatgaaa ctctcaacca 360
ctaccataac tgcagcaaca tgcaaaagtga tttcaactta aaggaagaaa tgttgacaaa 420
taagtctata gattgtaggc caagcaatga acttctggat tacatcaaaa gagaacagga 480
cagatggaac agtgaaacca agacggtttt agattcctca cgggacaatc tcgag 535

<210> 779
<211> 123
<212> DNA
<213> Homo sapiens

<400> 779
gaattcgcgg ccgcgtcgac gcaggcattc tctcattccc attttacaga gaggaaactg 60
agactcaaaag gactgactct aaagcccaag ctctcgacca tgagaccata cttctttctc 120
gag 123

<210> 780
<211> 436
<212> DNA
<213> Homo sapiens

<400> 780
gaattcgcgg ccgcgtcgac cgggtagttg gagaaaaaaa ttgcaaagaa gatagttcca 60
caaaagtgag aagaagaact caagtgggga aaaaaaagta gacttttcaa ggaaagagga 120
aaggaagaaa aggaattgca tgtaataaat agagatgagg atgaatcaga gtgacttcct 180
aaatatatgc tgcataaggaa gaaaaatgtg gccaaagagga atgggtgggac ctgaaagaga 240
tgtggaggag ggtgagagga agggactgtg tggaaggcag agctccgaaa cacagccgga 300
aaacagctgc ttgtattcca gctacagcat ggaaatgcac gcgggcctct ccgtgctcc 360
tcaccagccc gcacctaca cagaggcttc tgttcattca ttagttcatt cactcatgga 420
tcctcttccc ctcgag 436

<210> 781
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (49)

<400> 781

```

gaatttcagt agtttcactt ttcaaaatta aacaaatttt taattttant taattctgtt 60
gttatttctt cagagtgttt ctctctgtca cttaggctag agtgcagtgg catgatcttg 120
gctcactgca acctccacct ccagagttca agcgattctc ctgectcagc ctccttgta 180
gctgggatta cagggtgctg ccaccacgcc tggctaattt ttgtattttt agtagagatg 240
gggtttcacc atgttgacca ggctggcttc gaactcctgg ccttgtgatc caccgcctc 300
ccaaagtgtt gggagtacag gcgtgagtca ccatgcccg ccttcttctt ttattttttt 360
ttaaagtaga ggttgcaaac tgacagcctt tggaaagaat acagcctaca aatacttttg 420
tttggcttgc acagtatttg tttattgttt ttacacacga agaagttgag agcatttaaa 480
acactggcac tttaaataaa gttttaaatt tttggcttct tttggaaaat ggaaagggtg 540
ctctctctctg ggtcagcatt cctcttggtg gcagttagct gcagctgggt tgaagctgct 600
ccttttagcca ggcttgtggg ctccagtttg ccacagcctc caccactcga g 651

```

<210> 782

<211> 384

<212> DNA

<213> Homo sapiens

<400> 782

```

gaattcgagg ccgcgtcgac aaaataattc agatgagcta gtttctagtt tgccctataa 60
tttttagaag ttacatgcta actcaccctg tattatgggtc agaaatctga actgtgggag 120
atactggggtt ttgacccac gtaattttcc acttaacctt tattcacaga gtactgaacc 180
taggcttttc tcatcaagaa tctctcaagg gtttaaaatg acagtgtata gtttttgtaa 240
aggcagggtta aatcttgatt ttaatgtagt cttttgacat gtattatttt cttcattggt 300
tttaactctt gaactttatg agttaggatt ccctgacaaa tatacgctaa taaatgtctt 360
agtaccgata tgaacaatct cgag 384

```

<210> 783

<211> 165

<212> DNA

<213> Homo sapiens

<400> 783

```

gaattcgagg ccgcgtcgac tggcaaaggg ggtggtagat tctggcaaaa aagttttggc 60
atctgacacc catcagatct gctggtgac cgaattatac attctgtgga tagagagttc 120
tcaaagtaac attgatccat gatattttgt tgctggatgc tcgag 165

```

<210> 784

<211> 457

<212> DNA

<213> Homo sapiens

<400> 784

```

gaattcgagg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagctat 60
ccacctgcct gtctacacct tctccttcc atccatccac tcacctgtct acaccttctt 120
ccttccatcc gectgtctac actttcctcc ttccatccac ccacctatct ataccttctt 180
ccttctgtcc acctgcccac ctacgccttc ctccatccat ccaccgcct gtctacgcct 240
ttctccttcc atccaccac ccatctatac ttctcctctt ccatccacct gectgtctac 300
atcttctctc ttccatccac ctgctgtct acaccttctt ccttccgtcc atccacacat 360
gcattctgtt ttccaatcat ccttctggct gttgttatca ccttggccat ctacggcacc 420
cggaagttca agaagaaagc ataacaggca actcgag 457

```

<210> 785

<211> 437

<212> DNA

<213> Homo sapiens

<400> 785

```

gaattcggcc aaagaggcct acgagggcga cggaggaact ttcgcgagca aaagatccgt 60
ggccgagatc caggagagag cagcggtaga atgagggcgg cgtgattctg aactgtaaac 120

```

```

ccagaagagg cgtggctgtg gcggaggagg gagtcgtgag gggtagtact aacctcgga 180
ggcgcgattc gggatcctaa tcggatattt cattttggtt tatctcttag ttttgcataa 240
aaattttatc tgagtttata ttaaattaac tcattatcag aagattatta aataaagata 300
tagaaaaata catcagaaat ttcttgacgg gagttaaaaa ttagcatcct ccatttctct 360
ttacagagtt actgcattta aaattatttg tttgttcagt tatttacctg ctcatgttgt 420
tcgctgttgt actcgag 437

```

<210> 786

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (16)

<220>

<221> unsure

<222> (82)

<400> 786

```

gaattcggcc aaagangcct ataggcctct ttggccgaat tcggccaaag aggcctacta 60
tttgtgtatc tttttgcttg tnttctgttg ggatagtctt ggactttttc aaatttcatg 120
aatcagggag gggacaacag gtagaatagg cctcctgagt cccttacctg ttctttttcc 180
ttttttctag tctggttttt cttctcctta tcattttctt gttctttttc attttcctat 240
gctgctgctt ctatttcttc tatgtgttgt tgtttctcct tctcctccct ttgtattatt 300
tatcccaagc aatagcctta acaaacaacc atccaaaact gagttaaaaa tagactactt 360
gtcagtgtgt tgtactcccc cctcctccct gccgcccg 398

```

<210> 787

<211> 200

<212> DNA

<213> Homo sapiens

<400> 787

```

gaattcggcc aaagaggcct agagactgga ggccagtgga gcattttgag cagagccgtg 60
tcattggaaag actcattttt tcagtgggta ctttgacttc tgtgtggaga acagactgga 120
gtggagctgg agtagagaga ggagactggg taggagcatt gccacagtcc aggcattgaga 180
cgatgggtgc tggcctcgag 200

```

<210> 788

<211> 199

<212> DNA

<213> Homo sapiens

<400> 788

```

gaattcgacc aaagaggcct agtcgattga attctagacc tgcctcgagc aacctgctat 60
tagtactttt gctaataaat tggatcccat tttgtttgct aaataaaggc tcagtgtgga 120
cttacttttc tctttacttt gaaaatctga atatagttcc caaatgaatt taaagtacat 180
tcaagcaacc atactcgag 199

```

<210> 789

<211> 258

<212> DNA

<213> Homo sapiens

<400> 789

```

gaattcggcc aaagaggcct acggtatgtt aaaactatgt taaattctgc tttgctatct 60
tgttgtgtga taaaagagct tctaatttgg aagtcaggaa ggatggacct cagccatgag 120
ctgccctggc aggcgtgtgt tatcacaaca gttgggtatt cccttactgc aacaaatggg 180

```

gaagtagatt tgactgcaca ttttaacaaa aatcttgaga ataccaggaa aacaactagc 240
atgaagggaa gtctcgag 258

<210> 790

<211> 223

<212> DNA

<213> Homo sapiens

<400> 790

gaattcggcc aaagaggcct acgagtatct ggagttgagc tctgtattga catctaattct 60
gcattttctcc tctactgggg tgaacactgt ctcgtcactg ggtataacag cattactact 120
attgctgcta cagccaaagc tgtcatcaca tttggaacta ctgttcagat caagtgtcat 180
gctatttttt gagggatctc cctgtttact tgtattactc gag 223

<210> 791

<211> 281

<212> DNA

<213> Homo sapiens

<400> 791

gaattcggcc aaagaggcct agatataagt tagctgccct gaaaccctcc acaggattttt 60
caaaggactg ctagtgttcc atctgaagac ggaaagacac attccctgca acattttctg 120
cacagtgagc tgccccaac aagctgccct gttgcaaacc acctttcagt acagcatatt 180
ttttctcaaa cgtgcatat ttattaagca caccattttt cctgcgtatg gaattctgtt 240
ctctctcaat gttaatcttt aatgtacaag ccatactcga g 281

<210> 792

<211> 134

<212> DNA

<213> Homo sapiens

<400> 792

gaattcggcc aaagaggcct agggaagaag aaaattctgt attggttttg actaacaaca 60
agctgccgga agatctcttt ttctccatgt tactgagagg tgacagtgtg ctggcagtc 120
tcacagccct cgag 134

<210> 793

<211> 165

<212> DNA

<213> Homo sapiens

<400> 793

gaattcggcc aaagaggcct acagaagatc ccacaggaga agatgcacat gactcccttc 60
tttgtagcat tttctagttc ccccgaccg tcagtggat tatctccctc gtgcagccct 120
ggcatatctg ccccatctc gagaggcatg cgcacgcccc tcgag 165

<210> 794

<211> 305

<212> DNA

<213> Homo sapiens

<400> 794

gaattcggcc aaagaggcct acgagcacag cccgcacccc ttgtacctgc accactccca 60
cccaaagtgt ctttctactt ataatagaa caagaagtaa atatatatgc ttagctatct 120
taggagttag atcttgatg ttttaaagtc cagctgggtc agacaacatg ttacttgctc 180
cctatgtgat atggttttga tatttgtcct ctctaaattt catcttgaaa tctgaccccc 240
cagtgttga ggtgggatct agtgggaggt ggtgggtgat gggggcagct cccactacac 300
tcgag 305

<210> 795

<211> 182
<212> DNA
<213> Homo sapiens

<400> 795
gaattcggcc aaagaggcct aagggtcatc ctaattatat ttgtacaagg aattgtgtaa 60
gcatagaaac tatgaaaaac ataattttga ttacattatt tatatatatt tgtaatatga 120
gtagttccaa gatcagagtt atggccacac attgctcgag caggtctaga attcaatcga 180
cg 182

<210> 796
<211> 436
<212> DNA
<213> Homo sapiens

<400> 796
gaattcggcc aaagaggcct aaaaatacaa cagattctca gagactatatt tttttggggg 60
ggtttggggg cgggtgggga cggagtctc ctcttgctcc ccagcctgga gtgcaatggc 120
acaatctagg ctactgtaa cctccgtctc ccaggtagaa gtgattcctc agagactatt 180
attaggaaca cttcaagcac acaactagaa aatctagagg caatggacaa attcctgaaa 240
acatacaacc tcgcatgttt gaatcaggaa gaaactgaaa ccctgaacag atgaataatg 300
aattctgaaa ctgaatcagt aataaaaaaa caacaaccaa aaagctcttg accagacaga 360
tccacagctg aattctacca gatgtgcaaa gagcctgtac caatcctact gatactattc 420
ccccacaac ctcgag 436

<210> 797
<211> 249
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (96)

<400> 797
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagaccat gcctggccct 60
tttgtgtttt tttttaaatt attatttttt ttctngagg caggctctgc tctgtcacct 120
aggctggaat gcagtggctc gatttcaggt tactgcatcc gaaaccttct gggctcaagc 180
agtccctcca gtctcagctt cccaagtagc tgggactaca ggcgcagtc accattccca 240
actctcgag 249

<210> 798
<211> 313
<212> DNA
<213> Homo sapiens

<400> 798
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctaggactac 60
tgctcacgtg ccccgcccac catattgaac tgcctgttac actatcacca aactcaaatt 120
gaccaacca taataaatgt tatctattgt gctatttgcc atgctctgta ccagccctga 180
gccagacca ttccataaac tccattcatt cccatccaac tttcttctact ttactgagcc 240
atgccttgta gcagcagcca cccatctcag ttctgccaca gccagctcca ctccctcacc 300
cccgagtctc gag 313

<210> 799
<211> 263
<212> DNA
<213> Homo sapiens

<400> 799


```

gaattcgcgg ccgcgtcgac ttcagttcta atagtttttt tgtgaagtct ttaggttttt 60
ccaaatataa gatcatatca tctgtaaaca aaaataattt gacttactcc tttctgcttt 120
ggatgtcctt tattttcttc tcctgtctga ttgctctagc taggactgcc agttctgtgt 180
tgaatagcag tggtgatagt gggcattctt gctgtattcc agatcttaga agaaagactt 240
tcagttttcc cccatgtctc gag 263

```

<210> 800

<211> 331

<212> DNA

<213> Homo sapiens

<400> 800

```

gaattcgcgg ccgcgtcgac ccaaacagcc cgggaccatg ctgtcgtctc gctccttgct 60
tccacacctg ggactgttcc tgtgcctggc tctgcactta tccccctccc tctctgccag 120
tgataatggg tcctgcgtgg tccttgataa catctacacc tccgacatct tggaaatcag 180
cactatggct aacgtctctg gtggggatgt aacctataca gtgacgggcc ccgtgaacga 240
ttcagtcagt gccgtgatcc tgaagcagt gaaggaggac gacagcccag tgggcacctg 300
gagtgaaca tatgagaagt gcaaactcga g 331

```

<210> 801

<211> 296

<212> DNA

<213> Homo sapiens

<400> 801

```

gaattcgcgg ccgcgtcgac ctgcccacta agaagatgaa gccttttcat actgccctct 60
ccttcctcat tcttacaact gctcttggaa tctggggcca gatcacacat gcaacagaga 120
caaaagaagt ccagagcagt ctgaaggcac agcaagggct tgaattgaa atgtttcaca 180
tgggctttca agactcttca gattgctgcc tgtcctataa ctcacggatt cagtgttcaa 240
gatttatagg ttattttccc accagtgggt ggtgtaccag gccgggctg ctcgag 296

```

<210> 802

<211> 152

<212> DNA

<213> Homo sapiens

<400> 802

```

gaattcgcgg ccgcgtcgac gggaccattt gcttcttttc tttctcgaat aaaatgtttg 60
taatactcat tgtaacagcg actgtggcat ggggcctgtc ttctgtagag cttttgtgct 120
gtgcttgttt ccacggcagc cagcaactcg ag 152

```

<210> 803

<211> 678

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (66)

<220>

<221> unsure

<222> (172)

<400> 803

```

gaattcgcgg ccgcgtcgac atccaggatg tgggtggctc tgatecttct tctttgctg 60
ctggcncetga ccagtgccca tgacaagcct tccttcacc cgctgtcgga tgacctgatt 120
aactatatca acaaaccgaa tacaacatgg caggctggac gcaacttcta cnatgttgac 180
ataagctatc tgaagaagct gtgtggcact gtcctgggtg gacccaaact gccaggaagg 240
gttgcgttcg gtgaggacat agatctacct gaaacctttg atgcacggga acaatggctc 300

```

```

aactgccga ccattggaca gattagagac cagggctcct gcggctcttg ttgggcattt 360
ggggcagtg aagccatttc tgaccgaacc tgcattcaca ccaatggccg agtcaacgtg 420
gaggtgtctg ctgaagacct gcttacttgc tgtggtatcc agtgtgggga cggctgtaat 480
ggtggctatc cctctggagc atggagcttc tggacaaaaa aaggcctggt ttcaggtgga 540
gtctacaatt ctcatgtagg ctgcttacca tacaccatcc ctccctgcga gcaccatgtc 600
aatggctccc gtcccccatg cactggagaa ggagatactc ccaggtgcaa caagagctgt 660
gaagctggct atctcgag                                     678

```

<210> 804

<211> 204

<212> DNA

<213> Homo sapiens

<400> 804

```

gaattcgcg cgcgctcgac gtcctttatg aattctatct tctcattctt ccgggcatgg 60
gctttctgta gcctcactat cctctcaatc agcatggctt tgtccacttc tgggaagtgtg 120
tccacagcca ccgaggagct ggtattctct ggagatcggt cttcagcact gattcgagca 180
ttaagtgacc ctgatgaact cgag                                     204

```

<210> 805

<211> 284

<212> DNA

<213> Homo sapiens

<400> 805

```

gaattcgcg cgcgctcgac gcagactgtc ctgaactcat ctctcaaagc tgctacagag 60
cccaggaaga tttcaggatg aagagcttcc tctcttccct cactatcatt cttctggttg 120
tgattcagat acaaacagga tccttgggac aagccactac ggccgcttct ggtactaaca 180
aaaacagcac ctccaccaa aaaacccctc taaagagtgg ggccctcatc atcatcgatg 240
cgggtgcctg cagtttctc ctctttgcca ataccgaact cgag                                     284

```

<210> 806

<211> 290

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (107)

<400> 806

```

gaattcgcg cgcgctcgac atcatggcta ccctgcgtgt cccactcctg gtggctctcg 60
tccttcttgc tgtggcaatt cagacctctg atgcaggctc ctatggngcc aatgtggaag 120
acagtatctg ctgccaggac tacatccgtc accctctgcc atcacgttta gtgaaggagt 180
tcttctggac ctcaaaatcc tgccgcaagc ctggcggtgt tttgataacc gtcaagaacc 240
gagatatctg tgccgatccc aggcaggtct gggggaagaa gctactcgag                                     290

```

<210> 807

<211> 885

<212> DNA

<213> Homo sapiens

<400> 807

```

gaattcgcg cgcgctcgac tcacatgga gctctcgcg cggatctgtc tcgtgcgact 60
gtggctgctg ctctatcgt tcttactggg cttcagcgcg ggatctgcca tcgactggcg 120
ggaacccgaa ggcaaggaag tatgggatta tgtgactgtc cgaaaggatg ccacatgtt 180
ctggtggctc tattatgcca ccaacccttg caagaacttt tcagagctgc ccctggtcat 240
gtggcttcag ggtgggtccg gtggttctag cactggattt ggaaactttg aagaaatcgg 300
ccctcttgac acccaactca agcctcgaaa tactacctgg ctgcagtggt ccagtctcct 360
gtttgtggat aatcccgtgg gcacgggctt cagctatgtc aacacaacag atgcctacgc 420

```

```

aaaggacctg gacacggtgg ctccgacat gatggttctc ctgaaatcct tctttgattg 480
ccataaagaa ttccagacgg tccattctac atttctctcag aatcctacgg aggaaagatg 540
gctgctggca tcagtgtaga actttacaag gctgttcagc aaggggaccat taagtgcaac 600
ttttctgggg ttgctttggg tgactcctgg atctcccccg tggattcagt gctgtcctgg 660
ggaccttacc tgtatagtat gtctctcctt gataatcaag gcttggccga ggtgtccgac 720
attgcagagc aagtccttga tgcgtgaaac aagggtctct acaaggaggc cactcagctg 780
tgggggaaag cagaaatgat cattgaaaag aacaccgacg gggtaaactt ctataacatc 840
ttaactaaaa gcagcccggg gaaagctatg gaatcgagcc tcgag 885

```

<210> 808

<211> 275

<212> DNA

<213> Homo sapiens

<400> 808

```

gaattcgcgg ccgcgtcgac ctccacctga tcgccatgct cacagtgtct ctataccttg 60
gtcttattct ggaacccagg actgcagtac aggcaggaca cctcccaaag cccatcatct 120
gggctgagcc aggtctctgt atcgtctcgt atacatctgt gattacctgg tgtcaggggt 180
cctgggaggg ccagtattat catctgtata aagagaaaag tgtaaactct tgggacactc 240
aagtccctct ggaaccagg aataaggccc tcgag 275

```

<210> 809

<211> 584

<212> DNA

<213> Homo sapiens

<400> 809

```

gaattcggcc aaaggagcct actcttttgc ataacacatg tctacaatga ttcttaagtg 60
cctcctggcc ttcccttgc tgcccagcct ctcttccca agttttccat cttgttcttt 120
tcactcttcc tcacgagaaa tgccctccac tcccttcact atgctgacca gttctggata 180
cccacaagct tatccttttt ggggggtccc agtcactgcc tgtagtgtgt caccagtgtgca 240
tgtgttagag ggggcattca tgggatcctg tgggcactga cgataccctg agccactgcc 300
caagagttag cttcttcccc gccagagcct cacgggcccc taaattccct gtcgacctg 360
gtgttcatca ggaagtgggg ccaggaggga gccctctggt aatctgtcag ttattagaga 420
acctcctgaa tctggggagc tggggttggt ggcttctgta agttgtaatt atttaacttt 480
gtattttgaa tagttttaga cttacagaaa agttgtaaga atagtataaa gaatttccta 540
catccttcac ccaaattttc caaatgttaa cattttggct cgag 584

```

<210> 810

<211> 600

<212> DNA

<213> Homo sapiens

<400> 810

```

gaattcgcgg ccgcgtcgac tgggagtgtc gctttgggaa acatgaatct cctattcaga 60
ctagcagttt tccttagcct gtgggtgtgt tccgatgtc agggacaaac aaaagaagaa 120
agcactgagg aagtgaaaa atgaagtgtt caccgtccag aaaactgtc caaaacaagc 180
aggaaaggag acttgctaaa tgcccattac gatggctact tggctaaaga cggtccaaa 240
ttctactgca gccggacaca agatgaaggc caccctaaat ggtttgttct tgggtgcgga 300
catgtcataa aggggctgga cattgctatg atggacatgt gccctgggga aaagagaaaag 360
gtgattatag cgccttcgtt tgcataatga aaagaaggct acgcagaagg caagattcca 420
cccaatgcaa ctctgatgtt tgagattgaa ctttatgtct tgaccaaaag accaaggagc 480
attgaaacat ttaagcaaat agacacggat aatgaccggc aactctccaa agctgagata 540
gagctttact tacagaagga ctttgaaaaa gatgcaaacc cccgtgacaa gatactcgag 600

```

<210> 811

<211> 124

<212> DNA

<213> Homo sapiens

<400> 811

gaattcgcgg ccgcgtcgac tgaagacttt gtgtggctgc atgacactct tactgaaaca 60
 acggattatg ctggccttat tateccctct gtcctacaa agccagactt tgatggccct 120
 cgag 124

<210> 812

<211> 479

<212> DNA

<213> Homo sapiens

<400> 812

gaattcggcc aaagaggcct accttcattg actctctttt cggactcagc ccgcctgcac 60
 ccagggtgaaa taacacagcca tgttgetcac acaaagcctg tttgggtgtc tcttcacacg 120
 gacgcgcattg aaacatataat ctagtattt tttctcacct atcattcacc tgaatttctt 180
 taaaaaattt taaccctttt ttaaccacat ttagactgtt tctcttttta tttgtaagat 240
 ataaatttta taagagggtt gtttcaagg gattctttgt ttatagagca tcaacaatgt 300
 tcaacacaca tctttcagtc accgtattgt ttagtgatat gttttttgct attccaaatg 360
 ggattttatt cctattactt ttcacatga aattcacatc atatggattg gggcccccaa 420
 cccctggcc acagacaggt actggtctga ggcctgtag gaactgggct acactcgag 479

<210> 813

<211> 560

<212> DNA

<213> Homo sapiens

<400> 813

gaattcggcc aaagaggcct agaggaatga tcatcgctct gtcacatctg attgtctggt 60
 tctctcttct cttcatgtct ttgatcaaat ctgtggctgg ggtcatcaac cagccctgg 120
 acgtctccgt cacaattacc ctgggagggg atcagcctat tttcacaatg agtgcccaac 180
 aaagccagtt gaaagtattg gaccagcaga gctttaacaa atttatacaa gctttttcta 240
 gggacaccgg tgcattgcaa tttctggaaa attatgaaaa agaagacata acagtagcag 300
 aactggaagg aaactcaaat tctttgtgga ccacagccc acccagtaag cagaaaatga 360
 tacacgaact cctggacccc aatagtagct tctctgttgt ttttcatgg agtattcaga 420
 gaaacttaag tctgggtgca aaatcggaag tagcaacaga taagctttct tttctctta 480
 aaaaatttac tcgaaagaat atcgctaaaa tgatagcagg caacagcaca gaaagttcaa 540
 aaacaccagt gaccctcgag 560

<210> 814

<211> 579

<212> DNA

<213> Homo sapiens

<400> 814

gaattcggcc aaagaggcct agcttgatta taagatcggg tgcttaactt ctctgaaaca 60
 ggctcctctg cagaaggaca gattggctat gatgatctga ttagacgacg aggagaagca 120
 gcctggccta gaaggtgctc agtacgtggc agcggtagtg gtcacgtctc tcagggtgca 180
 gagaggctgg ggtcagcgac ctggggcttt ctttgatca ttttatgaag aaaggtaaaa 240
 ataccacagg cgagaacaag cagcaaaggg cggatgagat ttttcatctg cagctttgaa 300
 ttgatacctt taagtattga gctattcttt tgtaggaca gaacacgta ttccattaga 360
 agagaacatt ttggggtggt ggaagtgtc cacgtcctgt gtggggtgac agttacacgc 420
 atgtcacatc agcagtctga ggaggaggg gagaagggcc gggctggata ccttcagcct 480
 cttcatcgca ctccaggcac caagtgaag ggcaggaggt tttcattatt tagggaatgc 540
 agccctggtg tagaggacac ctgcgggaga catctcgag 579

<210> 815

<211> 618

<212> DNA

<213> Homo sapiens

<400> 815

```

gaattcgcgg ccgcgtcgac ccggggatca ccatggcggc ctcatgtgtg gggaagaaga 60
tcgtgtttgt aacggggaac gccaaagaagc tggaggaggt cgttcagatt ctaggagata 120
agtttccatg cacttttggtg gcacagaaaa ttgacctgcc ggagtaccag ggggagccgg 180
atgagatttc catacagaaa tgcaggagg cagttcgcca ggtacagggg cccgtgctgg 240
ttgaggacac ttgtctgtgc ttcaatgccc ttggagggtt ccccgccccc tacataaagt 300
ggtttctgga gaagttaaag cctgaaggtc tccaccagct cctggccggg ttcgaggaca 360
agtcagccta tgcgtctgc acgtttgcac tcagcaccgg ggaccaagc cagcccgctg 420
gcctgttcag gggccggacc tcgggcccga tcgtggcacc cagaggctgc caggactttg 480
gctgggaccc ctgctttcag cctgatggat atgagcagac gtacgcagag atgcctaagg 540
cggagaagaa cgctgtctcc catcgcttcc gggccctgct ggagctgcag gactactttg 600
gcagtttggc agctcgag                                     618

```

<210> 816

<211> 164

<212> DNA

<213> Homo sapiens

<400> 816

```

gaattcgcgg ccgcgtcgac ttcaaattct gtgttaaaaa ggagcctttt cctccttctg 60
gaagtgtctc tgattaaatt tttaagcatt aaaatatgct gccccatttt ctaataatgc 120
agtatataat acaactccca ttactaacta atgctcaact cgag                                     164

```

<210> 817

<211> 719

<212> DNA

<213> Homo sapiens

<400> 817

```

gaattcggcc aaagagccta cgccaacttc cttctactct aataattaaa ataaaaataa 60
tacttgggag gtaactggaa taaaggttct aaaatcaaaa ccctctgaag ggtgaaaact 120
gggagcctcc tgttcccata gtaaccacag cactcagggc actgtctccc agcgttgag 180
tactgtctta tgaccagaga tcctaagcaa cctctgctca tctgagttgt ccaccatatt 240
gtgggcatga gtccctgaca atagtaaata gcacctctgt tcccttattg ggtaaatgat 300
tttccaactc tgggaatgtg tagaattcat tatggaaata atgcaataat tcaaatccat 360
aatattgata ctttcatgtt aagtttagga ctaatcttgt gtatgctcct taagtgattt 420
gaatctttaa aaagcttatg attccaattt gaaatgtgaa attgatttta cgtttgtgat 480
ttgaagtga aaggatataag aatatttaac ttagctcatg aaaagtatta gactagattt 540
actataagtt taatgtatta gatttacaag agatgcttaa atatatgaga atgttttgtc 600
ttaattggtt ataattctgt catatcaatg atttgaagtg ctaaaataga aaattaaata 660
tgataaatta cacaagaagt ttagaatgtt taaaagattt taataaaca agcctcgag 719

```

<210> 818

<211> 100

<212> DNA

<213> Homo sapiens

<400> 818

```

gaattcggcc aaagagcct aatttatatc ttggatgagg tggatgcggc cttggatctt 60
tctcatacc agaataattg gcagatgctg cggactcgag                                     100

```

<210> 819

<211> 615

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (58)

<220>

<221> unsure

<222> (74)

<220>

<221> unsure

<222> (118)

<400> 819

```

gaattcggcc aaagaggcct aatttttatg tctatccagt agttattttt gcaaactnat 60
acaatagtac aaanggcaca gtgttgaaag atcttaattt ttgagtgaaa cttacttnaa 120
agaagtcatt tccccccctg aatcttagtg taaaggcagc tgcagtctgc tgacagcttg 180
tggttatgct ctgatttact ggggaaggag gaggttgtag tattttaaat gcataataga 240
gcattcgttt cgtcatctgg aagcagagat ggaagaagct ggggggaaat gagagacatc 300
actgttgctt tcgtggaggg aagctttgta gcatgttata agacagcagt gcatattgaa 360
gaaaatatct gttaggaatg catgtcacca gatgtatttt gctttcaaga atggtagaca 420
catcaaacaa gaatcagata aaagcctgag aaaaagatgt tcagaagaat actggagtta 480
ttctttatgc ttactgccc ttacctctc ttggtacctt ccagagaaac aagtatagat 540
gtatttttag cttgccgttt ccagcatcaa tatgacaaca tgattttgtc tttatatcag 600
taagcagcac tcgag 615

```

<210> 820

<211> 680

<212> DNA

<213> Homo sapiens

<400> 820

```

gaattcggcc aaagaggcct agcagacaga gatacatgat actcactgtt accattctgg 60
ctctctgtct tccaagccct gggaaatgcac aggcacagtg cacgaatggc tttgacctgg 120
atcgccagtc aggacagtgt ttagatattg atgaatgccg aaccatcccc gaggcctgcc 180
gaggagacat gatgtgtgtt aaccaaaatg gcgggtatth atgcattccc cggacaaaacc 240
ctgtgtatcg agggccctac tcgaaccctt actcgacccc ctactcaggt ccgtaccag 300
cagctgcccc accactctca gctccaaact atcccacgat ctccaggcct cttatatgcc 360
gcttttgata ccagatggat gaaagcaacc aatgtgtgga tgtggacgag tgtgcaacag 420
attcccacca gtgcaacccc acccagatct gcatcaatac tgaaggcggg tacacctgct 480
cctgcaccga cggatatttg cttctggaag gccagtgctt agacattgat gaatgtcgct 540
atgggtactg ccagcagctc tgtgcgaatg ttectggatc ctattcttgt acatgcaacc 600
ctgggtttac cctcaatgag gatgggaagg cttgccaaaga tgtgaacgag tgtgccaccg 660
agaaccctg tgtgctcgag 680

```

<210> 821

<211> 414

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (291)

<400> 821

```

gaattcggcc aaagaggcct acttatgttg ggattgcttt tggtctgtat tgggtggactt 60
gtgtatcttc gaagaagtaa tatggaattt ctctttaata aaactggatg ggcttttgca 120
gcttttggtt ttgtgcttgc tatgacatct ggtcaaatgt ggaaccatat aagaggacca 180
ccatatgccc ataagaatcc ccacacggga catgtgaatt atatccatgg aagcagtcaa 240
gcccagtttg tagctgaaac acacattgtt cttctgttta atgggtggag naccttagga 300
atgggtgctt tatgtgaagc tgctacctct gacatggata ttggaagcg aaagataatg 360
tgtgtggctg gtattggact tgtgtatta ttcttcagtt ggatagctct cgag 414

```

<210> 822

<211> 205

<212> DNA

<213> Homo sapiens

<400> 822

```
gaattcgcgg ccgcgtcgac gtgggaggaa ataggtgggc tgaagaggag gaaaaggaga 60
gctagctctg tggctgtggt tcaaacagaa atatttgatt ttagtccaga aaaaaagagc 120
agtttggtta ttgaaatgc caagtttctt gggtttattt tgggttttgt tattgttttt 180
tggtaaagaa taccgttgtc tcgag                                     205
```

<210> 823

<211> 355

<212> DNA

<213> Homo sapiens

<400> 823

```
gaattcggcc aaagaggcct actttttgta atttaaacac tgagagaagc ccaaattggt 60
ttcaaagtgt tattttttct tactgatata gcaagggtatc tgagcacatc aagcttgaga 120
ttgcagggga gaagcaggaa cattactggc ttacacaagg aaaggggcag ctattcagac 180
acgaataact gctgcactgt ttggtataaa ttgtcacaat ttcagaagag attcttagat 240
gttagtgaga aaaacatact taactttcct ttgcatttgt ttacattata aagaagtatc 300
tgctttattg gcattctgcc tgtcagtgcg ggtcaatttg aaagaggaac tcgag       355
```

<210> 824

<211> 328

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (32)

<400> 824

```
gaattcggcc aaagaggcct agctaatttt tnttgatttt ttagtagaca cggggtttca 60
ccgtgttagc cagyatggtc ttgatctcct gagcttgtga tccgcccgcc acggcctccc 120
aaagtgtctg gattacacgc gtgagccacc gcgcccgccc tgtactgtta ttcttattgc 180
ccttttatac ccactagtgg ttgggaagtt attcattcaa catcttttag tgttattcac 240
tttttaaaaa gttgaagtac agcatacata gagaaaagtg tgtcctccag ctttttattt 300
tattttattt ttttttttag cctctttg                                     328
```

<210> 825

<211> 101

<212> DNA

<213> Homo sapiens

<400> 825

```
gaattcggcc aaagaggcct actcccatcc ctccaaattc caggaaaaaa attttgagta 60
tgctgataaa ctcaactgcaa ggtctcatat actcactcga g                                     101
```

<210> 826

<211> 394

<212> DNA

<213> Homo sapiens

<400> 826

```
gaattcggcc aaagaggcct aatcataaaa ttggaagtct tgtatgaatt ctttctcagt 60
cctgattctt tccttggtct ctttgcctat aggtgggtgt cggatgggtt acccttcagc 120
atgtgttttg atctctcaga atgacatccc ggttcctcag agtgttgcca gtgctggagg 180
ccacattgca gttgggcagc aagggtcttg tagtgtgaag gacccaagta actgtgggat 240
gcctctgacc cctccacact ctccagaaca ggtatccta ggtgagagtg gaggtatgca 300
gagtgtgcc agtcacctgg tttcccaaga tggagggatg ataacgatgc acagtccaaa 360
gagatcgggg aagattcctc caaaactcct cgag                                     394
```

<210> 827
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 827
 gaattcggcc aaagaggcct aaaggaagcc aatctaacaa tgtgtgagtt cagaaacctg 60
 tcagccaaaa tggggtagca gattttgatg attttgattg ttgaaggggc ccttgacta 120
 tcactttttca ttctttttga taggaagttt tcacacatgg aaagcctgga cctgtttggc 180
 ttatattcat acatacacac atagggtatat gtcaaaataa ctactttgta atttttttaa 240
 tagcattttg tgaacatttt ccatgtcatt aaatattatt ctacgatagc atttcccata 300
 tgtcttttaga acacaaattc gag 323

<210> 828
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 828
 gtcgagaaac ctctagtgtc acatataaaag tgaggctgcc taacataaag actgagcgag 60
 gcacccactt atcaattaga catataactca atttttcttc tacgttaagg agtcatttta 120
 aataagagct gtaaaatctt cctcctgtgt tccaagggat tgttttttac atccctcctt 180
 gcagtgtgcc agttcttctt ttggagagca ctgatctcag aaaaacggga agaggctgta 240
 tttcttgatt ggcagtatga aattaatatt cagggaagta ctcgag 286

<210> 829
 <211> 484
 <212> DNA
 <213> Homo sapiens

<400> 829
 gaattcggcc aaagaggcct aggttcagag cacaaatcta cagttaggtt gcctgggttc 60
 cagtggcaga tctaccactt actataatag ttgrgtggcc tttgaattaa cctctccaac 120
 cagtttcttc acatgtaaag tggggataat aatagtgctt gcctcaggat tactttgagt 180
 attatatgaa ttaattgtaca tacaattatt ataatagtac atgccatgtg gaagtgtctat 240
 taatgttaat agtcatttcc attagcagca gcagcagcag attctccagc attcaccttg 300
 ttctccttgt gaagatcatt tgataagtct ctctctctcg ggtgttacag aatctgatta 360
 cctcaacagt tggttttcct gatattgtat ttgcaagtag caaatgtcat ctacaaagac 420
 agtactgttt cctagacttt cctaccactt tcaagtctac tgccaggga aatgactact 480
 cgag 484

<210> 830
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 830
 gaattcggcc aaagaggcct aagatcatga attatgacga atttcagcac tgttgagca 60
 agttcgtgta cagccaaaga gagctatttg agccttgga taatctgcct aaatattata 120
 tattactgca catcatgctg ggggagattc tcagggtgagg gtctccctcc aggetcatcg 180
 cctcgctcct ctacacctct gctcatctct ttgaggcctc cctctgttcc cagaccaggt 240
 cctctcctgg ccaggccctc ctgccttccc tctgcccc tgccctgcct cgtggttaca 300
 ctccctcacc cactactcga g 321

<210> 831
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 831


```

gaattcggcc aaagaggcct accggccttt gtacgatgcc taccagcctc agtactcttt 60
gccgtaccca cgggagcctg gcgcagcctc cctctattac caggatgtct acagcctcta 120
tgagcctcga tacaggccct atgatgggtg tgcgtctgct tacgccccaga actaccgcta 180
tcccagagccc gagcggccca gctcccagc cagccactcc tcggaacggc cacctcccag 240
gcaaggatat cctgaaggat actatagtcc caaaagtggg tggagcagtc agagcgatta 300
ctatgcaagc tattactcca gccagtacga taccctcgag 340

```

<210> 832

<211> 497

<212> DNA

<213> Homo sapiens

<400> 832

```

gattcggcca aagaggccta gcaatgaaca aggaacatca taatggaaat ttcacagacc 60
cctcttcagt gaatgaaaag aagaggaggg agcgggaaga aaggcagaat attgtcctgt 120
ggagacagcc gctcattacc ttgcagtatt tttctctgga aatccttgta atcttgaagg 180
aatggacctc aaaattatgg catcgtaaaa gcattgtggt gtctttttta ctgctgcttg 240
ctgtgcttat agctacgtat tatgttgaag gagtgcacac acagtatgtg caacytatag 300
agaaacagtt tcttttgtat gcctactgga taggcttagg aattttgtct tctgttgggc 360
ttggaacagc gctgcacacc tttctgcttt atctgggtcc acatatagcc tcagttacat 420
tagctgctta tgaatgcaat tcagtttaatt ttcccgaacc accctatcct gatcagatta 480
tttgtccagt actcgag 497

```

<210> 833

<211> 380

<212> DNA

<213> Homo sapiens

<400> 833

```

gaattcggcc aaagaggcct aatcagttct gcgaaggaga tggttggtca gaagatgaag 60
tacagtattg tgagcaggaa ctgtgagcac tttgtcacc agctgagata tggcaagtcc 120
cgctgtaaac aggtggaaaa ggccaagggt gaagtcgggt tggccacggc gcttggaaac 180
ctgggtgttg ctggatgctc ttttgcgatt aggagatacc aaaaaaaagc gacagcctga 240
agcagccaca aaatcctgtg ttagaagcag ctgtgggggt cccagtggag atgagcctcc 300
cccagcctc cagcagcctg accctcgtgc cctgtctcag gcgttctcta gatcctttcc 360
tctgtttccc aactctcgag 380

```

<210> 834

<211> 235

<212> DNA

<213> Homo sapiens

<400> 834

```

gaattcggcc aaagaggcct agctgaagat gcgagatatt gctgggcagg ccctggcctt 60
tggtcaggat cttgtgacgg ctcttctaaa ctttcatacc tacacagaac agaggattca 120
aatttttccct gttgattctg ccattgacac tatatctcca ttgaatcaga agttctcaca 180
ataccttcat gaaaatgcgt cctatgtccg ccctcttgag gaaggaacgc tcgag 235

```

<210> 835

<211> 309

<212> DNA

<213> Homo sapiens

<400> 835

```

gcgatcgaat tctagacctg cctccagcct gggcaacaag agttgtctca aaaaacaaaa 60
aagaaagaaa gaaaaaaaca gccacagttt catcagcaca gcaaaaagggt ttttgttttt 120
gctcttggat tttgtcgttt ggtttttgct taatatcaaa tatccagtca gtgtaaactc 180
gtttataaatt tggctccttg atttcaagga gctatgatgc agttcgttgt ggggatgtgt 240
tgtctccatg tcatacatgt gactttgtcc atgtttgcac ccagttcaag gaagacacaa 300
aacctcgag 309

```

<210> 836
 <211> 271
 <212> DNA
 <213> Homo sapiens

<400> 836
 gaattcggcc aaagagaatt ctagacctgc ctcgagaggt gaccgcaaac tgcctccaga 60
 gtacaacctt cccacactt acgttgaaat gcagtcactc cagattgctg ccttcctttt 120
 cacggctcgc catgtggtga ttgttgcca ggactgggtc acagacctca gtctctacag 180
 gttcctgcag acagcagaga tggatgaagcc ctccaccca tccccagcc acgagtcag 240
 cagctcatcg ggctccgatg aaggcatcga g 271

<210> 837
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 837
 gaattcggcc aaagaggcct agaataaaca agcaaagaaa ctacttggtta cactcatgcc 60
 ttctccagtc tgtattattt gccagggtatt tgggaacaa atttgaatga ggtgtcaacc 120
 ccaccttaa agttgtctca gcatacttag agggatagaa aaataagtag ataattagca 180
 catgacttca taaatcacat gtgtttatat ttatcatggt atgacagcat tagagaaggg 240
 atactaagtt aactttgcct gggttactaa gtattagcta taaaagttct aagatactat 300
 tcttctctcg agagttttaat cactagggaa gacaggatgt gttatggaaa gaaacatat 360
 ataaaggcaa gaagatgaga atgtatatag tgttttcagg aagccgtaag aagatactcg 420
 ag 422

<210> 838
 <211> 448
 <212> DNA
 <213> Homo sapiens

<400> 838
 gaattcggcc aaagaggcct agcagctcct tatcatgggg acaattcatc tctttcgaaa 60
 accacaaaga tccctttttg gcaagttgtt acgggaattt agactttag cagctgaccg 120
 aaggctcctg aagatactgc tctttggtgt aataaacttg atatgtactg gcttctgct 180
 tatgtggtgc agttctacta atagtatagc tttaactgcc tatacttacc tgaccatttt 240
 tgatcttttt agtttaatga catgtttaat aagttactgg gtaacattga ggaaacctag 300
 ccctgtctat tcatttgggt ttgaaagatt agaagtcctg gctgtatttg cctccacagt 360
 cttggcacag ttgggagctc tctttatatt aaaagaaagt gcagaacgct ttttggaaaca 420
 gcccgagata cacacgggaa gactcgag 448

<210> 839
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 839
 gaattcggcc aaagaggcct agtttacaat cattgttcta gacattatta gataatttta 60
 atccagtaac ttcatttttc aattctgggt aaattttctt gtatcatttg ataatttcgg 120
 cctcccaatc tttttctttt tctccttttg ttctatgctc cggggacatt ctttaactat 180
 tatcttaciaa tctctccatt ggatttttgt tgccatattt ttaacttcca aatgcttcat 240
 tgggtctgggc gcggtggtc acacctgtga tcccagcact ttgcgtagac tcgag 295

<210> 840
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 840

```

gaattcggcc aaagaggcct agaaatattt atcaaccatt ctttgctaaa gttatctaca 60
gtttggcaaa ggcaaaggaa aaaaatacac cagtagccat catattttga caatattata 120
agaagtaagt gctttgagaa ttcataagag aaagagaagc tttacatttg aggagctcaa 180
gaaacaattc acattaaata tatcatttga gattgacttt gataaaaaaa gtaatttttag 240
tggatgaaac tgggtgtgta tgaattcgtc agtgtgtgtg tgtgcgcatg tgtgtgtatg 300
tgtgtgtttt tgaggacaag gaagcaactc gag 333

```

<210> 841

<211> 605

<212> DNA

<213> Homo sapiens

<400> 841

```

gaattcggcc aaagaggcct agggggagaa gaggaagagg ccgttgctgt ccaggaagag 60
gcgcttgccg ttctggtgca ggacgagggc cagcatggcg aagaagtga gatgaagagg 120
atgaagatct ggcctcgggt gaccaggtag cagtagtaca ggccactggg tgccaccagg 180
agcagggcag gccctggaat caagctctca gcttttagagg cagtaaagca gccgctgaag 240
tacatgaaga ggatgaggaa gaaggggatg taccacatgc agtgaccag gtactcatca 300
taatagtaga gcagctcaaa ggagtcgagc agcgtctccg gcttgagatt cttgatgatg 360
gggttctcac ggacagacag gtggtgctgg tagccactga agagcaggcg gtggttgaca 420
gagtcacca ccaggtggat gctggcacc atgatgaaga tgatgatgct cacgtacgtg 480
atggagcgtg gcagggtgcg gggggaccgc tcgatgagct tgagcaagag aaagggcgtg 540
atgacgttgt aggccatgtg gaagtagtcc ccaacactgg gcttgttgag tggaaaccac 600
tcgag 605

```

<210> 842

<211> 297

<212> DNA

<213> Homo sapiens

<400> 842

```

gaattcggcc aaagaggcct aatctcatcc aaattcctag gggctgatca ctcttctgtc 60
ctaaaaataa aacaaagcca aaactctctc ttccttttga agcactacca tcttcttttc 120
ctccagagct ctgcccactg ttttactttc tccctccac ttcaggctaa agctcacttt 180
gctctgccag acctgttctc agcaaggatt cttttgtttt tttaaacctc cgtaatgatt 240
atcccatact attgtgtcct attttttcct tttctatgt atctgactcc actcgag 297

```

<210> 843

<211> 362

<212> DNA

<213> Homo sapiens

<400> 843

```

gaattcggcc aaagaggcct aggtgttttc atttggtgat caggactgaa cagagagaac 60
tcaccatgga gtttgggctg agctggcctt ttcttatggc tattttaaaa gatgtccagt 120
gtgggggtgca gttgttagaa tctgggggag gcctcgtaca gccggggggg tccctgagac 180
tctctgtgac agcctctgga tttagtttta ccagctatgc catgacgtgg gtccgccagg 240
ctccggggaa ggggctggag tgggtctcca ccattactgc tgctggaacg accacgtact 300
acgcagactc gtttaagggc cgggtggacca tactcaagga cacttcggac gatacactcg 360
ag 362

```

<210> 844

<211> 298

<212> DNA

<213> Homo sapiens

<400> 844

```

gaattcggcc aaagaggtag tcatggctct catgtgcaag aaaatgaagc acctgtggtt 60
cttctcctcg ctggtggcgg ctcccagatg ggctcctgtec cagctacacc tgcaggagtc 120
gggcccaggg caggtaagc ettcggagac cctgtccctc gcctgcactg tctctgctgg 180
taccatcagc agtgggaggg atcagtgggg ctgggtccgc cagccccag ggcagggact 240

```

agagtggatt gggcatgtct tttctactgg gagaccctac tacaaccctg ctctcgag 298

<210> 845

<211> 385

<212> DNA

<213> Homo sapiens

<400> 845

gaattcggcc aaagaggcct aattttaagt atttgcaata aatataatgta tatagattgt 60
atgtattcct atattcttat ttttcatttt attattaagt aaaagatcat taaaagttaa 120
aataaaaacc ttggagtttt ttggtgaatc ttgaggttta acatacatct gagagtggcg 180
tgggtaagag tcctcagtta ctgccttata ctccatggg atggttccca cagattgtat 240
ggaagagagt aaaatgagga acttggtgat aaatcagggt agtgtatttc ttttgaatt 300
taagtaaac tgattaaatt ttccttatct gctgtctcc atgttttctc ccttaatctg 360
tttgtctcc taaccccccac tcgag 385

<210> 846

<211> 313

<212> DNA

<213> Homo sapiens

<400> 846

gaattcggcc aaagaggcct agggattttg ctactaatt taaactgaaa tgctggttgc 60
tactagaagg atcctattcc ttgtcagttg ctggcagaat tcccttgcca acctcccaa 120
ccacacaaaa tccttccctg ctgttagggc ctcacatttc tgcaaaagta tccctttgac 180
cctggccggg ctggccata ctaatgtagt ttcttatctg ttggattatc caaataatgt 240
tctgtcagtt cccaccacag atgtgtctca gctccctcca ccttctcaag atcagtctca 300
ggtaagctc gag 313

<210> 847

<211> 268

<212> DNA

<213> Homo sapiens

<400> 847

gatgcgagcg gctggaactc tgctggcctt ctgctgctg gtcttgagca ccactggggg 60
cccttcccca gatacttgtt ccaggacct taactcagct gtgaagccag gatttcctaa 120
aacaataaag accaatgacc caggagtcct ccaagcagcc agatacagtg ttgaaaagtt 180
caacaactgc acgaacgaca tgttcttgtt caaggagtcc cgcatacaca gggccctagt 240
tcagatagtg aaaggccgga acctcgag 268

<210> 848

<211> 306

<212> DNA

<213> Homo sapiens

<400> 848

gaattcggcc aaagaggcct attgaattct agacctgcca cagtaatgct atatatttct 60
gagcattgtt tttctctaga taattttata tttttgagta taccctactt ccaagtgttt 120
tttgttttgt tttgtttgt tttgttgtt gttgttttga gacagggctc cactgtgtcc 180
cccaggctgg agtgcagtg cacaatgacg actcactgca gcctcaacct cctggggcca 240
agtgatectc ccacctcagc ctctcaagtg gctgggacca cagaagtgca ccaccacgag 300
ctcgag 306

<210> 849

<211> 516

<212> DNA

<213> Homo sapiens

<400> 849

```

gaattcggcc aaagaggcct aggtggacag aagtgtcttt ctaatatatta aagtacttaa 60
cagtaataat taggctgggc atggtgggttc gggcctgtga ttgcagcact ttgggaggcc 120
gaggcaggag gatcacttga agctgggaga tggagaccag cgtgggcaat aaagtgagac 180
ctcatctcta ccaaaaaaag gaagggaaaa tagctgggtg gcctgtagtc ccagccactc 240
gggaagctga ggtgggaagg atcgctgtgag cccaagaatt caagttgttg tgacccgtga 300
tcgtgccact gcattccgtc ctgggtgaca gagtgtgagc ctgtctcgaa agaaagaaaa 360
aacaataatt ctggtatttc aatagagggt tggagacag ctggaatcta atctgtttga 420
agcagtcaaa cttgatggca ttttgtgagg cattatgctg gttgttcacc cttgtttata 480
ggttttcttc acgtatttac tccacatagt ctcgag 516

```

<210> 850

<211> 298

<212> DNA

<213> Homo sapiens

<400> 850

```

gaattcggcc aaagaggcct acatttcttg caagcttcca tttttcttct gtttggacat 60
taatagcaat aatttttggg tattctggac taaaccgttt ctggggccac ttgaaataaa 120
aataccactt ttaaagtgcc tattcagttc attgagaacc agttaatccg tatccaagga 180
atcaccttca aaacaaacaa acaaaaaaaaa tccttgaact tcagctatgt atatcagaaa 240
tatgacaacc ctactgtttt tacaattaga ttttgtatgg cagacaggaa cgctcgag 298

```

<210> 851

<211> 209

<212> DNA

<213> Homo sapiens

<400> 851

```

gaattcggcc aaagaggcct aattataatt ttgttgtatt tgtttcctag gagcaagtgt 60
tcctgtctgcc agttctttcc tctttaggcg tgggtgagaa aaagcagaaa ctttacataa 120
agctgtatatt cttaatcatc ttttaattga aacttaagaa aatgaattta ttctgttata 180
tttatgtaac ttatttcctg gaactcgag 209

```

<210> 852

<211> 358

<212> DNA

<213> Homo sapiens

<400> 852

```

gaattcggcc aaagaggcct atgtaaatcc aagtatcact actgttttcc tcctcataat 60
gcccttaaag caaatatttt ccttgctttc tataatcgga aagaggattc tgagagtatc 120
ttggctccat accactttat ttttttgtct tttctttttt tccctctgtg ggagaacaga 180
gtctcactat gttgccagg caggctctga actcctgggc tcaagcaatc ctctttcctc 240
tatctcctta agtgcctgaga ttccaagtgt gagccaccat accactttaa actccctaaa 300
gggagggtcc ttatctgcaa ctcccacagc caccctcgcc ctatcccccac aactcgag 358

```

<210> 853

<211> 261

<212> DNA

<213> Homo sapiens

<400> 853

```

gaattcggcc aaagaggcct atattaatca ggactttgtg ggggacagaa gcccaattaa 60
aactatctta ggcaaagggt agaatttcta atagggatgt taggtttctc aactaataac 120
caaaccatga gcagggtgga atgcatctgg ttcttaggga tgattttgat gctgtcagag 180
cactctttca gtttatttca ttctctcat tgcgcattgt cagaaagcat aatccccagc 240
aactctctag agacgtcga g 261

```

<210> 854

<211> 242

<212> DNA

<213> Homo sapiens

<400> 854

```
gaattcggcc aaagaggcct acacaaaaga aggtgaggtc tcagttatag cgaggacccc 60
ctactcattc acagagggtc cctgcagagc gtcccacccc agtgatgccc agtgcattggc 120
actgccccac cctggtcctt ctcagcagca tgtttagcatc gctggtcctt gccagcccc 180
ttctctgtcc ccatttcctc ttctctcctt gtctctctca ccccagcac tcgccctctg 240
ag 242
```

<210> 855

<211> 242

<212> DNA

<213> Homo sapiens

<400> 855

```
gaattcggcc aaagaggcct aactcagtggt gattttttaga aaaagaaaaa ctcggtgggtc 60
tcatactctt tgacagttgt ttgtgaataa taccctcccc aacaaccttc ccagtactca 120
actgctatgt aagaatgctt tcttatgttg taaatgtctc agtattttgc tgcttggtat 180
ttgttcagtt tccttgata tctcagggtc agaaagaatc aggtctttct ccaactctcg 240
ag 242
```

<210> 856

<211> 296

<212> DNA

<213> Homo sapiens

<400> 856

```
gaattcggcc aaagaggcct acgagaattg gggcagggtc ttcccatgct gtttcatgat 60
agtgaatgag tctcatgaga tctgatggtt ttgaaaacag gaggttgctt gcacaagctc 120
tctctctttg ttgtctgcca tccacataaa atgtgacttg ctcctccttg ccttctctca 180
ggattgtgag gcctccccag ccattgtgaa cagtaagtcc aataaacctc tttcttttgt 240
aaattgcccc gtctcaggta tgtcttcac agcagaatga aaatagacgg tttagg 296
```

<210> 857

<211> 324

<212> DNA

<213> Homo sapiens

<400> 857

```
gaattcggcc aaagaggcct agtgaaaaat atcttatttc ttttttcaat tttaaaggct 60
tcctgctttt ttacccttgt atattatcag tgaaaaggat caacagttaa tttgagccaa 120
gtaataaaag aaattctgca ttgtcacga agacaattta tggtagacag ataaatacac 180
agattacagt gtaaagtctc catttaacct gtttataaaa gatacaaggc cactactaac 240
tactcagtg gatttatata ttccatccac ttgaaacaat aaacagtaat gtatccaaga 300
agattatgtg tcctatgtct cgag 324
```

<210> 858

<211> 252

<212> DNA

<213> Homo sapiens

<400> 858

```
gtggacctcc tgcacaagaa catgaaacac ctgtggttct tcctcctcct ggtggcagct 60
cccagatggg tcctgtccca ggtgcagctg caacagtggg gcgcaggact gctgaagcct 120
tcggagacct tgctcctcac ctgcggtgtt tatggtgggt ctttgaccgg gtactactgg 180
gcctggattc gccagcccc agggaagggg ctggagtgga ttggcgaggc cagcttttagt 240
ggaggactcg ag 252
```

<210> 859

<211> 294

<212> DNA

<213> Homo sapiens

<400> 859

```

gaattcggcc aaagaggcct actcatggac cgcctgcaca agaacatgaa acacctgtgg 60
ttcttctccc tgctgggtggc agctcccaga tgggtcctgt cccaggtgga actgcaccag 120
tcggggccag gactcgttaa accttcggag atcctggccc tcacctgcac tctctctggt 180
ggctccatcg ctcccttatta ttatttttgg gtccggcggc ccgcccggaa gggactggaa 240
tggattggaa gtgtctttgt cactgggacc tcaaagacta atccctcgct cgag 294

```

<210> 860

<211> 332

<212> DNA

<213> Homo sapiens

<400> 860

```

gaattcggcc aaagaggcct acaatcttca tcatgacctg ctccccctctc ctctcacc 60
ttctcattca ctgcacaggg tcctggggccc agtctgtatt gacgcagccg cctcfaatgt 120
ctgcgggccc aggacaaaag gtcaccatct cctgctctgg aaccagctcc aacgttggga 180
cacattatgt atcctgggtat cagcaattcc caagatcagc ccccagactc gtcatttatg 240
acacttctgc gcggccctca gggattcctg accgattctc tggcgccaag tctggcacgt 300
ctgccaccct gaccatcacc ggaccactcg ag 332

```

<210> 861

<211> 291

<212> DNA

<213> Homo sapiens

<400> 861

```

gaattcggcc aaagaggcct attcttgttc aacttctaaa gagaaattgg agaagataaa 60
actggacact ggggagacca caacttcatt ctgctgtgga tctcccagct acctgcagt 120
gccaccatgt cttgggtcct gctgcctgta ctttggctca ttgttcaaac tcaagcaata 180
gccataaagc aaacacctga attaacgctc catgaaatag tttgtcctaa aaaacttcac 240
attttacaca aaagagagat caagaacaac cagacagagg catggctcga g 291

```

<210> 862

<211> 208

<212> DNA

<213> Homo sapiens

<400> 862

```

gaattcggcc ccgcgtcgac gattcttatt ctcttgggga atagtctaga ttttaaaaca 60
ttttcttctg ctccctagaa tgtctgcatt ttttttgttt ttgatacggg gtcttgctct 120
gtcaccaggc ctggagtcca gtggcgcgat ctcatatcat tgcaacctct gcctcccgtg 180
ttcaagcaat ctcccaccc tcctcgag 208

```

<210> 863

<211> 271

<212> DNA

<213> Homo sapiens

<400> 863

```

ggagaaaatt tgtaacaact ctgagcacat gctgggtgaa gtcacagctc aaggaaagat 60
aaagctgggc ggaaggaggt gtgcgtggct tctgggggtg gaccagagg ggaggtctct 120
ggacaggggc tggggttcag tgccagggcc ctgaggaaga aatggggact gatctcaaaa 180
ttccagaatt cctgtacat ctgttcacgt gcttgtgtcc aggtgtgact tgtaaaactgt 240
ctagtgtttg cattaaataa tgacactcga g 271

```

<210> 864

<211> 235
<212> DNA
<213> Homo sapiens

<400> 864
gaattcggcc aaagaggcct aaaaaaaca atttagtctc acacatcgta ctgtatacaa 60
ttccatgttt ttgttttttt gtttgtttgt ttgttttaga caggttcttg ctctgtcacc 120
cagtctggac tgcagtggta tgatcatggc tcaccacggc ctcaacctcc tgggctcaag 180
caacctcct gcttcaccct ctgtggtagc tgggaccgag gacacgcaac tcgag 235

<210> 865
<211> 153
<212> DNA
<213> Homo sapiens

<400> 865
gaattcggcg ccgctgctgac ggtaacttgt tccctaaact gtccttatag ttaaataat 60
atattaaaaa aaactataag ttaaaataac attcagattg tatagcatag gctgatgcat 120
tttaaaacaa tatttacaat attaccctc gag 153

<210> 866
<211> 282
<212> DNA
<213> Homo sapiens

<400> 866
gaattcggcg ccgctgctgac cctaaaccgt cgattgaatt ctatacctgc ctcaagtcta 60
attctgtatc ctgaacctct cttaacacat cccctctgct ccagtccecat ggtaggcctt 120
ggtcactgca gctgcctcct aacatgcttc ccggcttcta gtctctcccc acaccactca 180
gcagccttcc caaatggcag atcagcacct gaggcctgc tacagtcctc gcaggggctg 240
cccgaggcg acagcccaat gtgctttgct ggtttgctcg ag 282

<210> 867
<211> 243
<212> DNA
<213> Homo sapiens

<400> 867
gaattcggcg ccgctgctgac ggggtttgta ggtggagctg catacctgct agttttcccc 60
attatttcat catcagtcag aggtgacttt gacatgtcct ttctttgtcc agtggttact 120
ctgcaggcca ctgccctcac tactctggtt catgtcttct gtgtgctttt gttgttccag 180
ctttgccttt catgccttag tgatttcctt gttaaaatgc cacatccctt cttccactc 240
gag 243

<210> 868
<211> 188
<212> DNA
<213> Homo sapiens

<400> 868
gaattcggcg ccgctgctgac cattctctta tgtggacatc acaatttacc tgttctccca 60
gcagtggata tttgtgttgt ttccagtcac ttgctgttat ctcaagtgtt ataaatgatt 120
gtttctctta caccaggaat ttccattcct gggttatggg ttatgcttat tatgtcacc 180
aactcgag 188

<210> 869
<211> 198
<212> DNA
<213> Homo sapiens

<400> 869
gaattcgcgg ccgcgctcgac ctctttgagt ctggagtctt acgttcttcg gttttaggga 60
atgctggttg atgatttctt gacctttttt tcttcccttt ccagactcag gatactgggc 120
ctcttagact catgtatttt tattttttatt ttctctctca ttctctggct ttccttgaaa 180
cctcccccat acctcgag 198

<210> 870
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (93)

<220>
<221> unsure
<222> (147)

<400> 870
gctcatgtgc aagaaaatga agcacctggg gttcttcctc ctgctgggtg cggtcccgag 60
atgggtcctg tcccagctgc agctgcagga gtngggccca ggactgggtga agccttcgga 120
gcccctgtcc ctcacctgca ctgtgtntgg tgggtccatg aggagtagtg gttactactg 180
gggctggatc cgccagaccc caggaggagg cctggaatac attgggagta tctataacaa 240
tggggacacc tactataacc cgtccctcga g 271

<210> 871
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (166)

<400> 871
gaattcggcc aaagaggcta atggatctca tgtgcaagaa aatgaagcac ctgtggttct 60
tcctcctgct ggtggcggtt cccagatggg tcctgtccca gttgcagctg caggagtcgg 120
gcccacaact agtgaagcct tcggagaccc tgctcgtcac ctgcantgtc tctggtggct 180
ccatcagcag tagtccccac tactggggct ggatccgcca gccaccaggg caggggctgg 240
agtggcttgg gaatgtctat tatggtggca gtagttaaa caatcctgcc ctcgag 296

<210> 872
<211> 275
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (251) .. (252)

<220>
<221> unsure
<222> (257) .. (258)

<400> 872
gcatggacct cctgtgcaag aacatgaagc acctgtggtt ttctcctctg ctggtggcag 60
ctcccagatg ggtcctgtcc cagggtgcac tgcaggagtc gggcccagga ctggtgaacc 120
cttcggagac cctgtccctc acctgcgggtg tgtctgggta ctcttcaga agtgggtact 180
attggggctg gatccggcag tccccaggga cggggctgga gtggatcgga agtatctatc 240

ataacggagtg nnccttnnac aaccgcgtccc tcgag

275

<210> 873

<211> 110

<212> DNA

<213> Homo sapiens

<400> 873

gaattcgcgg ccgcgctcgac ctaggatacct aggaagaagt gcaaagtttg acaacattat 60
ttacacatgt tctgattgta acaataatc tcactgtatg gggctctcgag 110

<210> 874

<211> 264

<212> DNA

<213> Homo sapiens

<400> 874

gaattcgcgg ccgcgctcgac gccaggagaa gtattggcag gctttagggtt attagggtgt 60
tactctgtct taaaaatgtt ctggctttct tctgcatcc actggcatac tcatgggtctg 120
tttttaataa ttttaattcc catttataaa gtgatttacc cacaagccca acctgtctgt 180
cttcaggtcc caggtaagt tcatggacct gagatgctcg caagggggat ggtgcctctg 240
gatccagtcc aggcgtctct cgag 264

<210> 875

<211> 268

<212> DNA

<213> Homo sapiens

<400> 875

gaattcgcgg ccgcgctcgac attaaattag ataagggtata ttcagcccct ggaatagtga 60
gaattaacaa ttggtaatgc ttgggttac ctccctgacc ttgcataaac catgcatggc 120
tgaactcacc ctgtccctgc ccagattttg cactgttgag attatgaggt acttcctaat 180
ggttgctgca gctgcagccc ataaaacagc tctttgtgtg tatgaagaaa atcataataa 240
gaggggcctc cagagccaaa ctctcgag 268

<210> 876

<211> 356

<212> DNA

<213> Homo sapiens

<400> 876

gcctcgagct cctccctgaa gccacaaatc tgaggtcac atttgcagtc tctccttcct 60
ttacttctat gtccaacagg ttaccaatc aatcttatag tcctttccag gggctgtgct 120
cttggcctgg ggtgggtctt tctctcctta cctggctgac agttacttgt ctctccgag 180
gggatcatgt tcggaccccc aggccagccc actgctgctc cttggcactt tcacggccct 240
ggcgtgtccc cgtcatagcc cttatcagtc ccttgatttt acctgggtcac cctccatctc 300
tgagggtatg ggggccagat ggcctcttgc gccctgatgt tttgagggat ctcgag 356

<210> 877

<211> 228

<212> DNA

<213> Homo sapiens

<400> 877

gaattctaaa taaaaaattg ttccggaggct gcaatgcgtg tcaaacatgc agtagttcta 60
ctcatgctta ttccgccatt aagtgggct ggaacatga ctttccagtt ccgtaatcca 120
aacttttggtg gtaacccaaa taatggcgct tttttattaa atagcgctca ggcccaaac 180
tcttataaag atccgagcta taacgatgac tttggtattg aaacaccg 228

<210> 878

<211> 193

<212> DNA

<213> Homo sapiens

<400> 878

```
gaattcgcgg cgcgctcgac ggttctgctt aatagtggaa taaaatcata caatccaaca 60
cataatgttt agtatgacta gacagcccca atacttggtg tacagtagat gctcattgag 120
ggtttaccaa atgatcacgt tcttctcata cctgatgcag accataaaag gttcgagtct 180
ccctccctc gag 193
```

<210> 879

<211> 263

<212> DNA

<213> Homo sapiens

<400> 879

```
gaattcgcgg cgcgctcgac gagttcccat tctgagcatc ccaggagaag caaggacccc 60
ttttaaactc tgtcagaacc tgttctctt gggttcattg tcacattact gaatttcagt 120
ttttctgtga tatgtgaaa ccccttattt tctgtgaact ttgtagaatt tccctttggt 180
ctcaggaggt agcccttgat gctagagagg cttcagaact gagctctacc tttccccaga 240
tccccagga ggaggccctc gag 263
```

<210> 880

<211> 237

<212> DNA

<213> Homo sapiens

<400> 880

```
gaattcgcgg cgcgctcgac ggaaattcta ggtgacttgc taattgtctt atttggata 60
ctcccatctt tactaaagaa ttagtatctt tggataaaaa ataaggaggc agaccagttt 120
tacaaatagc tgctggccag gagaataaca gtttctgcca ggtgagcagt taaaaaaaag 180
gcagactgga aaaataactg tggaatggtg tttcttattt acaaggcatt actcgag 237
```

<210> 881

<211> 289

<212> DNA

<213> Homo sapiens

<400> 881

```
gaattcggcc aaagaggcct aataaagaag taattagatt caacactcag atcactactt 60
agtttagatt acattaagat tgttttggtt ttgaatgggg gatagaaaac cattttcctt 120
ttattttatt tacttatttt tgagacagag tctcgtctctg tccccagge tggagtccag 180
tggcatgcct cggctcgtg caacctccac ctcccagggt caagcagttc tccctgcccc 240
accctccgag tacctgggat tgcaggtgcc tgacaccact gtccctcgag 289
```

<210> 882

<211> 260

<212> DNA

<213> Homo sapiens

<400> 882

```
gaattcgcgg cgcgctcgac ctaaaccgtc gattgaatta gacctgcctc gaggacagcc 60
tgggtgacaa agcaagactc tgtctccaaa aaaaccata aaaaaacaaa gaaaccccaa 120
caaaattgtg cattaacat atggatctgc tttcttggtt tgtgttcaat tccctgcctg 180
gcttgtgctt ctgtcctgtg ctacccctc cacygcctc ctgctggat cttgcccctc 240
acctctgccg gcacctcgag 260
```

<210> 883

<211> 357

<212> DNA

<213> Homo sapiens

<400> 883

```
gaattcgcgg ccgcgtcgac atcagcccat tttgtttct acatctgtgt gtgtagagct 60
ctggaataga attgttaagt ctgagcaaga aaaagcatag cgggttaagg acaagtgaaa 120
cgaagagaac cctctgtccc tggcagaatc tgcattgtaca tttcttgtct gtccttgtct 180
ctcttcttcc tgtctggccc attgcagaga gtattggaag tttccaacca ttggtggtac 240
tctatgtcca tcctacctcc tttgctgaaa gacagtgtgg cagcgccctt gctgtctgcc 300
tactaccctg actgtgttgg catgagcccc tcctgcacca gcacaaaccg cctcgag 357
```

<210> 884

<211> 144

<212> DNA

<213> Homo sapiens

<400> 884

```
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc cttttcccca 60
ctattccatt agaccccaca aatgttagtt ttgtgtgtgt gtgtgtgtgt gtttttaata 120
actgtaaccg gatgcaggct cgag 144
```

<210> 885

<211> 189

<212> DNA

<213> Homo sapiens

<400> 885

```
gtgtctttct gcatgtctct ttatgtctct atgtgtatct atctctctca gtctctcata 60
caagcatata cacactcagg atacctcgat ccagcagccg gagcaagcgg agataccaga 120
gataccactg gtcccagaag cggtcctgca tcccaccctg aactcctct tcacagccag 180
tccctcgag 189
```

<210> 886

<211> 221

<212> DNA

<213> Homo sapiens

<400> 886

```
gaattcgcgg ccgcgtcgac actttgctta tgattttttt ttaattagc ctttgagtgc 60
tttttttgtc tctgtcttac aagaatttca aatttttcta gaatccaact taccagtgtt 120
ttcctttaat gtggtggttc ttagccctgg ctatgcacta tacacaggct tttatgttta 180
caaagctccc aagtgattct cctgtgacac tgaccctcga g 221
```

<210> 887

<211> 250

<212> DNA

<213> Homo sapiens

<400> 887

```
gaattcgcgg ccgcgtcgac gctggaagct tttgaagatg gtttttgtgg gggcatgggtg 60
gctttatgtc tttatgcctg tttctgttgc tgggagtctc cagggggcac agtgtgggaa 120
tcacatgcat gctctgcccc tcctgtcttg tagaggggag gggacaggat gggtaaaagt 180
gggcgtgccc tcagcaatc ccggttgtca tcagcacgg acttcatcac tcctctgcca 240
tcccctcgag 250
```

<210> 888

<211> 269

<212> DNA

<213> Homo sapiens

<400> 888

```

gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctccagtgtc 60
ttctgaaacc tttggggctg acacaagatc ctttagtggt tgggatgacc tctttcctgc 120
agactttctc ccctatccct aactcatgca tggaaaacgt ttgtcaggct ggtttcccca 180
gcctccttga cctcaacatc acgctcacc ttttgggttt agcccagtgt tatttagcaa 240
attttctccag ctgcaaggaa ggtctcgag 269

```

<210> 889

<211> 264

<212> DNA

<213> Homo sapiens

<400> 889

```

gaattcgcgg cgcgctcgac cagagtaaat gcaacatttc ctctgctaca tttccacaat 60
tctcactgct gttctaccag gcctggcatg ttcttatccc agggactttg catttactat 120
ttcctctgcc tgcacaattg tatacctgag gcatacatgg ctagctctct cagttccctc 180
agggtcttca cctccaaaag tcaccttcac acagtgaagc ctccctgggc catcttacct 240
acaatttcaa cccaaacact cgag 264

```

<210> 890

<211> 624

<212> DNA

<213> Homo sapiens

<400> 890

```

gaattcggcc aaagaggcct acccttcccc cgcegcctccc gccgcctctc taaggagggg 60
atcctgcctc ccagcgccct ggatggggct ggcacccagc ctgggcagga ggccactggc 120
aacctgttcc tacatcactg gcccttgagc cagccgccac ctggctccct ggggcagccc 180
catcctgaag ctctgggatt cccgctggag ctgagggagt cgcagctact gcctgatggg 240
gagagactag cacccaatgg cggggagcga gaggctcctg ccatgggcag cgaggagggc 300
atgagggcag tgagcacagg ggactgtggg caggtgctac ggggcggagt gatccagagc 360
acgcgacgga ggcgcggggc atcccaggag gccaatattgc tgaccctggc ccagaaggct 420
gtggagctgg cctcactgca gaatgcaaag gatggcagtg gttctgaaga gaagcggaaa 480
atgtgtattg cctcaactac caagtgtggg gtggagtttt ctgagccttc cttagccacc 540
aagcgagcac gagaagacag tgggatggta cccctcatca tcccagtgtc tgtgcctgtg 600
cgaactgtgg acccccaact cgag 624

```

<210> 891

<211> 790

<212> DNA

<213> Homo sapiens

<400> 891

```

gaattcggcc aaagaggctc acttaccctt tgctctgaat gtgtgggtta tgaccctcta 60
tgagcaaagg aatgagatta ctaggctttt cagaattaat gtttaaagag taagagggtc 120
agagggaagc cctgcaggat aagtgaagaa cagccactat ttgtgtgtaa gaaagtaaga 180
catccagttt gactatttgg aggccttcta ggtggatcct tgtctgttca gttagccgag 240
atcattggct gaagaaaagg cttgggataa atgcgggtgt gctgtatcag cccatatcat 300
gtactgttgc ataagtgaat ttatacaagt ggacagttgc tatgatcaag ttttcaaact 360
ttccatctca ttctgagttt aatgctctga tagtgttcag gtagaaagtc aactccaatt 420
ccttgtggac attcaccttt acactttaac accctgaacc ctggctttct gccaaaatat 480
tttctttccc agtggctgga aactgattag ctagatggga gaacaaaggt ggctttgtac 540
tggggcatat tgcttttgag aatttagcag agagcattca aatggagtct ggatgtgatg 600
ccaaattatg cagatttggg gtttattttg gttagggttc ccatgagtag gtatgttaggc 660
aacgtaatac tgttctcagt ttatatggtc tggaaatttc cttataaatg ttatataggc 720
tttcttattt gattgtttta aaacacaaat atgtatgatt ttgagaaaac acattaccag 780
aaggctcgag 790

```

<210> 892

<211> 428

<212> DNA

<213> Homo sapiens

<400> 892

```
gaattcggcc aaagaggcct acttcatctt gtccccgttt catgccgttt cactccaccc 60
gcgtcgcttt tctttctccc ccttgtaatt tttatgaggg cgaatcctat gaaatggctc 120
attggaccgt tttctgtggt tcagcctatt tgctgttggc caaataacta gctgtggctt 180
ggtttttgaa attctctgca gatcagagct atagagctaa gagtttgagt atgaagaagc 240
actgtttata catgcacgaa aagcgtgctt ttttgctttt ttttgttttg ttattgagat 300
ggggctctgt tctgtgccc tggctggagt gcattgatgc agtcgtagca gcctccacct 360
cccgggctca accgagcctc ccgcctcagc ctcttgagaa gctgggactc cagggggagg 420
ccatcacg 428
```

<210> 893

<211> 164

<212> DNA

<213> Homo sapiens

<400> 893

```
gaattcggcc aaagaggcct agtgaagggg attttttttt tcttttaaac tgaaggtggg 60
gtacatggtg cagctggttc tgcattgct cagcctagtt ggcgtccagc ttggccattt 120
cctgcacata gatgcctata ctctcgctgt caaaaagcac gaag 164
```

<210> 894

<211> 419

<212> DNA

<213> Homo sapiens

<400> 894

```
gaattcggcc aaagaggcct aggtaggcct gagtgggctc agaaatgtct tttcattgat 60
tctacaaaaa gagtgtttcc aacccgttta attaaaaaa agatttaact ctgtgagatg 120
aatccaaaca tcacaaagca tttccacaga tagcttgctt ctagttttta tcaactggata 180
ttccgttttt cactatagtc ctcaatgagc tcagaaatgt tccttcatag attctacaaa 240
aagcaagttt ccaaggtgat gaatcaaaac aaaagttaa atctgtgatg taaatccaga 300
aaacccaaag catrttaact tatagcttgt ttctactttt taacatggaa tattcagttt 360
ttcattatag gcctcagtga gctctgaaat gttccttagt agatgctaca aaaagagtg 419
```

<210> 895

<211> 460

<212> DNA

<213> Homo sapiens

<400> 895

```
gaattcggcc aaagaggcct aggggaattaa tgctaaacta tgctccctgct cacttgctct 60
atgaccattc tggtaaatcc ttctatcagt cacttttctg ctataaaaga tttaaaaagt 120
agcaggggtg gctttctgtt ctccatata gacatttcag ccactgacta cctttggtga 180
aaagaaaaaa aaagatccca aaacatgctt tgaaatgaac agtccatcta agtgtctagt 240
ttgacaaata aatagttaga tgccttcttc atacttgata tttttagtgc aaaatataac 300
tggttatgtt acttattaca gttgaaattg ctatttatatg attcatgact tattaggatg 360
attgaggctc atgattacag ttttgtttgc atatgtacct caaggaccta caggttatgt 420
aagggtactg cttgctttga atacctcttt ccacctttac 460
```

<210> 896

<211> 319

<212> DNA

<213> Homo sapiens

<400> 896

```
gaattcggcc aaagaggcct agcaatggaa tgggtaatac ataaattaaa tgctgagatt 60
gaagaactga cagcctcagc aagaggaacc ataaggactc caatggcagc agcagcgctt 120
gcagagatgc ggcgcgtttt tttttttttt ttttttgata agttggtgta aggctatgtg 180
```

acttgatcaa aacagatgca gggcctctaa ataaaaggga tcactctgaaa ttaatgttgt 240
 ttgaaattac tatctgattt tgagggttcc agtatttctg tgaaaattca acaagaactc 300
 cttggaaaact ggtctcag 319

<210> 897
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 897
 gaattcggcc aaagaggcct agacacggct ggaggagaag tccccggtaa aatgtgatca 60
 gtactggcca gcccggtgca ccgagacctg tggccttatt caggtgacct tgttgacac 120
 agtggagctg gccacataca ctgtgcgcac ctctgcactc cacaagagt gctccagtga 180
 gaagcgcgag ctgcgtcagt ttcagttcat ggcctggcca gaccatggag ttcctgagta 240
 cccaactccc atcctggcct tctacgacg ggtcaaggcc tgcaaccccc tagacgcagg 300
 gcccattggtg gtgcactgca gcgcggcggt gggccgcacc ggctgcttca tcgtgattga 360
 tgccatgttg gagcggatga agcacagaaa gacggtggac atctatggcc acgtgacctg 420
 catgcgatca cagagggaact acatggtgca gacggaggac cagtacgtgt tcatccatga 480
 ggcgctgctg gaggtgcca cgtgcggcca cacagagggt cctgcccgca acctgtatgc 540
 ccacatccag aagctgggccc aagtgcctcc aggggagagt gtgaccgcca tggagctcga 600
 g 601

<210> 898
 <211> 676
 <212> DNA
 <213> Homo sapiens

<400> 898
 gaattcggcc aaagaggcct agggctggca tacttgtaa tactgatgtc catatagagc 60
 agtaacatta gcgttaatat cagacattaa gttttaacta tatttgaaa tctttaaaca 120
 gttttgatct agtaaaacat acaaaatgca caaaatataa aatgttaggc tctgaatcca 180
 gaagaaaaaa agttctcaaa aacagtacca taaattagat tattctaaca ctatcaacag 240
 attgcaaggc atttggttat ttgggcagca tacctggctc aggaagtagt tgacatgtga 300
 tatggagaga tggggatcac ccagggaactc ttgttccaaa tcaagcagtg cttggcgata 360
 aggctgcaaa acagaatcca gccctgtgca gaaggcccg aggtagattc catgtaaccc 420
 accttgcccc tgttgagatg gatggtgatc ctgctgttgc acatggcccc tgtactgttc 480
 aatgaactca gtgaagcgaa tatagtctgt gccgagcccg cagagtcgat tcaggacact 540
 ggtctcactg ggggtggagga aagggaagtc ctgcgatacc tgcaggccac tccgcttgtt 600
 ccagggtgaaa atggaccacg ggtaccgcct cagagccaag agcagttcgt ggatcattcc 660
 cacggcggac ctcgag 676

<210> 899
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 899
 gaattcggcc aaagaggcct aacaggttct gtaagttacc tttttttttg gactttataa 60
 gttatcagca agcttcttgt tagtaaaggc atgataatga aacttgaatt catctacaaa 120
 attggatgtg cccatcaagg ggcctctaaa ccaatttaag cccaaagtta actaattaca 180
 atttctactg gttttagtaa aactagcata gtcaaccaag taaacaaagt ccattgttaa 240
 tcttatttga gttagctaac attacattct agtaatgggt acacctaaat atatcatgac 300
 ttgagtttca ttacattcag acataaacta caaattccta atgtgcaaac tactgttgac 360
 atttttctta atcactgatg taccatacca g 391

<210> 900
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 900

```

gaattcggcc aaagaggcct aaagaatcac gagaagtcaa agaagcatcg ggaaatggtg 60
gccttgctaa aacaacagct ggaggaggaa gaagaaaatt ttccaagacc tcaaattgat 120
gaaaatccat tagatgacaa ttctgaggaa gaaatggaag atgcaccaa acaaaagctt 180
tctaaaaaac agaagaaaaa gaaacagaaa ccagcacaga attatgatga caatttcaat 240
gtaaatggac ctggagaagg agtaaagggt gatccagaag atactaactt aaatcaagac 300
agtgcctaaag aattggaaga tagtccccag gaaaatgtca gtgtcacaga gatcattaaa 360
ccatgtgatg atccaaaaag tgaagctaaa agtgttctta aaccctaaagg aaagaaaacc 420
aaagatatga aaaaacctgt cagagtacct gctgaaccac aaacaatgag tgttcttata 480
agctgtacaa cctgccatag tgaatttcca tctcgggaata aactttttga ccatctaaag 540
gccacaggtc atgcaagagc accttcatca tcgtctttaa acagcgcaat cctcgag 597

```

<210> 901

<211> 326

<212> DNA

<213> Homo sapiens

<400> 901

```

gaattcggcc ttcatggcct acgcagggtc gagcaggcct gttgccagcc caaccccggtg 60
cctggctgtg gaggggcaga gcatgagctg gcttagagcc ctgagtgggc accggcttgg 120
gaggggtgcgg ggagttgact ccttccctaa ctgctctgcy cctggccctt gcctctacag 180
gagcaggttg tgaggatggc tccgggcccc tgtggggcct ccccgaccca aaagcttcaa 240
ggacacgggg atgccagcct cttccccaag atgattttat tgaatgcaca caaagtccat 300
ccttgggttt gcaaaaagtc ctcgag 326

```

<210> 902

<211> 537

<212> DNA

<213> Homo sapiens

<400> 902

```

gaattcggcc aaagaggcct atgccatagt gctgaaggta gaggtgtctg tgcaaagcta 60
gtcatttgtt aacagcaatc agaagagatg ggggcaggca cacctgtcag aggtggcagc 120
agagctggca gyacaggacg gctgggctgg tctgggtcagg tgagcatgtc ccagagacag 180
cagcaacaga gagccgtcca gcaggctgtg aggcaggttg atggtcctag ctcattctctt 240
ctttggctct ctaccacata cactgtggtt ttaggaggct cctgaggtcc accctgccag 300
ccgtactgtg ggtatccttg gtagggttac ccttgaggag gtgggtaggg tccccccata 360
ggtcctggac ccattggttg tggtgataa ggtgggtatg gggccgttgg accagggcct 420
ggatatggtg gagggttctc ttggttcac ggggacctgt aaagtgcacc tctcctctcc 480
acgaaccgac tggataacgg tcgggtctga acctgaggag cccggaccag cccgcag 537

```

<210> 903

<211> 316

<212> DNA

<213> Homo sapiens

<400> 903

```

gaattcggcc aaagaggcct agccagaaaa agaccagccc aaaagtgtct aacttctctc 60
agaaactttg gcgacaatgt tggcctgtct gcaagcttgt gcaggggagt ttctcagga 120
gctatcagaa actatcctca ccattgtagc caattgcagt aatgttatga ataaggccag 180
acaaccacca cctggagtta tgccaaaagg acgtcctcct agtgcctagc gcttagatgc 240
cattttctct gttcagattg accctcttgc tggaaatgaca tctcttagta taggtggttc 300
agctgcccc ctcgag 316

```

<210> 904

<211> 687

<212> DNA

<213> Homo sapiens

<400> 904


```

gaattcggcc aaagaggcct aggtctggat tctgtcggat ggacttgggg ctagctgcgg 60
cggggctgga ggaggccaga taaccatgtc agccacagtt gtagatgcag ttaatgctgc 120
accctatcgg ggggtccaaag aaatgagttt ggaagaacca aagaagatga ccagagagga 180
ctggagaaag aagaaggagc tagaagaaca gcgaaaattg ggcaatgctc ctgcagaagt 240
tgatgaagaa ggaaaagaca tcaaccccca tattcctcag tatatttctt cagtgccatg 300
gtatatggat ccttcaaaaa gacctacttt aaaacaccag agaccacaac cagaaaaaca 360
aaagcagttc agctcatctg gagaatggta caagaggggt gtaaaagaga attccgtaat 420
tactaagtac cgcaaaggag catgtgaaaa ttgtggggcc atgacacaca aaaagaaaga 480
ctgcttttag agacctaggc gagtgtggagc caaatttaca ggtactaata tagctccaga 540
tgaacatgtc cagcctcaac tgatgtttga ctatgatggg aagagggatc ggtggaatgg 600
ctacaatcca gaagaacaca tgaattgtgt tgaagagtat gccaaagttg atttggcaaa 660
acgaacattg aaagcccagt tctcgag 687

```

<210> 905

<211> 557

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (130)

<400> 905

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gaacgtttcn ttccccttcc tctctctgtc ccttcatttc tcattagaat ggaagagggg 180
aaggtgcaga gggaaatgca gcaggaaaag ccactttgtt ctgggagagc acttggtgta 240
aaggcccagt agagcaggaa gcacaagtct cttaatcttc cagggcctca gttttcatca 300
tccacaaaagt ggggtgcagtg tgccaagatt ttagttagtt gagagactgt cccaaagacc 360
acagagcttt ttgggaagct gttgctctaa aaaaatggtc ataatgacaa ttaccaggag 420
gcacacagaca ctctgtgcc actggctaga catgggttat ctcgtttcat gtccgaagct 480
ccccgcaccc accctccttg cagagttgaa gaggtgctgt gagcagaaaa cctgccaagg 540
gaccacagaac gctcgag 557

```

<210> 906

<211> 485

<212> DNA

<213> Homo sapiens

<400> 906

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gaattcggcc aaagaggcct acttgcacatc agtatatctc ctgtcgtatt ttctttgtgg 60
tacctgtttt tactgcttta ctgtcagttt tcctgggggt ctgggggataa gcagatataa 120
acttgatat tcaagtcttc acacttatct gagagttctc aaccattgtg tcttaagcaa 180
ttgataaagg acccaaacc agagatcgaa accaaaagat tcagttaagg ggcagattgt 240
taggggcaat tttgctttcc tttttaacaa taaatttgaa ctgtgactga aaattggaat 300
ttcctatcag tctttaaaac tatcagtgcc tgattcagag attctgggtg cagtgcacag 360
ggattggcct agaaaatagc aatttttaaa gctttccagg tgataccaat gtgcagccag 420
ccactgcta tatggacttt ggtcctaaaa ttctgcatac acttaaaatg gctactttcc 480
ccgag 485

```

<210> 907

<211> 569

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (119)

<220>

<221> unsure
<222> (151)

<220>
<221> unsure
<222> (155)

<220>
<221> unsure
<222> (269)

<220>
<221> unsure
<222> (281)

<220>
<221> unsure
<222> (409)

<400> 907
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gggtgtgctc tacggggcct tctcgctgca ngacntcttt cctaccatcg cctcgggctg 180
ctcctggacc ctggagaacc ctgacccac caagtactcc ctctacctgc gcttcaaccg 240
ccaggagcag gtgtgcgcac actttgcnc ccccgctgc ngccctgga ccactacctg 300
gtcaacttta cctgcctgcg gcttagcccc gaggaggcgg tggcccaggc ggagtcagag 360
gtggggcgcc cagaagagga ggaggcagag gcggcagcgg ggttgagnt gtgcagcggc 420
tcaggcccct ttaccttctt gcaacttcgac aagaacttcg tgcagctgtg cctgtcggct 480
gagccctccg agggcccgcg cctgctggcg cccgctgccc tagccttccg ctttgcgag 540
gtcttgetca tcaacaacaa caactcgag 569

<210> 908
<211> 504
<212> DNA
<213> Homo sapiens

<400> 908
gaattcggcc aaagaggcct acactcacta ttatttttca gttctttctt taccagcct 60
ttctccttca tgtgaaaatg ttcattcttc tctcctcett gaagctctat tctttgtcat 120
atgtaactct ttatgctctg gttcttctct atttctgttt cttttttgtt ttctctatgg 180
gtctttttt tattcattac ctaaatgtag gtattcccat ggtttcatcc ttgaccttac 240
tctacaaaca cgatttctat ttccctgatt tcatttctca tctgtatgct tatgaccttt 300
ctgtcaagta ttagattcac atatccaat ggcagctact gcttcacctg gatgcctcat 360
agccatttca aatccaccta gtcattcaaa gtagaaaccc acaggtaact atgaaccccc 420
aaacaccacc ttcttaactt catatattta atgaagcacc aagctgtgac tcttctacct 480
cctgaatact actctccct catg 504

<210> 909
<211> 440
<212> DNA
<213> Homo sapiens

<400> 909
gaattcggcc aaagaggcct acattaatcc ttccctggct gtatctgect ccttgccaca 60
ggttatcatt attctaaata ttgtgaaagt ttctccatcc ctttaaacta ttttaccata 120
tgtatgtata tacaccaca cacacatata tatactgaga accatctatg atttcatttt 180
cttttttata ttgtataaa cgaaattata ctctctatat atttcaatga cattctctta 240
ctcaatcttg tgatcttgaa atttgctttt gttgatatgt gtggcagtaa tttgttcagt 300
tttcaactct ttacgtgttt cattgtataa acacatcata gtttattcat ccttacttct 360
gttgttggaat attttaaagt tttctagggt tctttttgtt gttcctgcta ttatttatgc 420

accacacaca tacactcgag

440

<210> 910

<211> 374

<212> DNA

<213> Homo sapiens

<400> 910

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gaattcggcc aaagaggcct acaggcattt gctgccaac gtggccttgc agtattaaaa 60
catgtgctaa caccacgaat aaaggcaact cacgttgctt ttgattgcat gaagaattat 120
ttagatgcaa tttatgatgt tacggtgggt tatgaaggga aagacgatgg agggcagcga 180
agagagtcac cgaccatgac ggaattttct tgcaagaat gtccaaaaat tcatattcac 240
attgatcgta tcgacaaaaa agatgtccca gaagaacaag aacatatgag aagatggctg 300
catgaacggt tcgaaatcaa agataagatg cttatagaat tttatgagtc accagatcca 360
gaaagaagct cgag                                     374

```

<210> 911

<211> 575

<212> DNA

<213> Homo sapiens

<400> 911

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gaattcggcc aaagaggcct acagacctct tccccacagc ctgggcctct tccacggagc 60
cttctcctgc agggcgagag cgttccctcca gttgtgggtc tgggggtggt ggcatctccc 120
ctaaagggaag tggccctctt gtggcaagtg atgaagtctc cagctttgcc tcagctctcc 180
cagacagaaa gactgcgtcc ttttcgtcgt tggaaaccca ggatcaggag gatttggagc 240
ccgtgaagaa gaaaatgaga ggagaacaca tccctttctc ctgtagatgg ggacctgac 300
ctgaacgggc agttgttggt cgcacaaccg cgtagaaatg cccaaaccgt ccacgaggac 360
gtcagagcag cggctgggaa gccagacaag atggaggaga cgctgacatg catcatctgc 420
caggacctgc tgcacgactg cgtgagtttg cagccctgca tgcacagctt ctgcgcggt 480
tgctactcgg gctggatgga gcgtcgtcc ctgtgtccta cctgccgtg tcccgtggag 540
cggatctgta aaaaccacat cctcaacaac tcgag                                     575

```

<210> 912

<211> 632

<212> DNA

<213> Homo sapiens

<400> 912

```

gaattcggcc aaagaggcct agacctgggt tgtgaattat ggcctggatt tcacttatac 60
tctctctcct ggctctcagc tcaggggcca tttcccaggc tgtgtgact caggaatctg 120
cactcaccac atcacctggt gaaacagtca cactcacttg tcgtcaagt actggggctg 180
ttacaactag taactatgcc aactgggtcc aagaaaaacc agatcattta ttactgggtc 240
taataggtgg taccaacaac cgagctccag gtgttctgc cagatttca ggctccctga 300
ttggagacaa ggctgccctc accatcacag gggcacagac tgaggatgag gcaatatatt 360
tctgtgctct atggtacagc aaccatttta ttttcggcag tggaaaccaag gtcactgtcc 420
taggtcagcc caagtccact cccacactca ccatgtttcc accttccct gaggagctcc 480
agggaaaacaa agccacactc gtgtgtctga tttccaattt ttcccaagt ggtgtgacag 540
tggcctggaa ggcaaatggt acacctatca cccagggtgt ggacacttca aatcccacca 600
aagaggacaa caagtacatg gccaggctcg ag                                     632

```

<210> 913

<211> 359

<212> DNA

<213> Homo sapiens

<400> 913

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gaactttagc cctgtcttct tttttagtgt tcagcactga caatatgaca ttgaacatgc 60
tggtggggct gaagtgggtt ttctttgttg ttttttatca aggtgtgcat tgtgagggtc 120
agcttggtga gtctggtgga ggattgggtc agcctaaagg gtcattgaaa ctctcatgtg 180

```

cagcctctgg attcagcttc aatacctacg ccatgaactg ggcccgccag gctccaggaa 240
 aggggttgga atgggttgct cgcataagaa gtaaaagtaa taattatgca acatattatg 300
 ccgattcagt gaaagacaga ttcaccatct ccagagatga ttcagaaagc atgctcgag 359

<210> 914

<211> 501

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (54)

<220>

<221> unsure

<222> (70)

<220>

<221> unsure

<222> (226)

<400> 914

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 ttgctatgtn ataaaaagaa caacaaatat ttaactctac ttcacgctat gtatgctgac 120
 gtatttgggg gtgaagtgtg ctaatgtctt catctatctt taaaatgcac caaaaaataa 180
 aaaaagatgg acaggtaaat ttttcttttt tgataaagca aatgtnacac aaaatgttgg 240
 aatctaactg ctactgtgtg tatacgtctg acagttcttt caacatttca tgtttgaaat 300
 ttgtcataat caactgaggg aggaggaaca aacaaaagat gcactctggc atttttgtag 360
 ggaagcttct cttctctgtc caacctccag cgtagaaccc taaaaacatc aactatataa 420
 tctactctct catgccaact ccttaaggac acacacttgt ccacactggc tccttatatt 480
 actgaccttg aaccaatttt t 501

<210> 915

<211> 275

<212> DNA

<213> Homo sapiens

<400> 915

gaattcggcc aaagaggcct agctctgtta atcctatgga acetttttctt tgetccctca 60
 ggacctccag tcctctttca atctttgtcc tactaatgtg gccctgtttg tctttacttc 120
 ctggcttcca tgctggcttg ggttccttat gccctccctc caccaggtt cactctcttc 180
 ttctgtcatc atcactgttt ccattggccac actctagctc tatcaccccc agaaactgtg 240
 cttccccccac cactgttcca tcacccatcc tcgag 275

<210> 916

<211> 525

<212> DNA

<213> Homo sapiens

<400> 916

gaattcggcc aaagaggcct aggetgacgc tgcgttttat ttttttcaag gattcagtga 60
 agtcagataa tcgaatatct ctcactctac tggcagacat attcttcacc tgttctgggt 120
 ttagttctcg gataggacc agtgctgcat cttttgccaa agctgttagg tcacttctctg 180
 agtatccatc agtcattcta gcaagttgtg ctagtctctt ttgggtcaat ggacttctct 240
 gtttacataa cagattttta agcaaaagta gtcttgtctc ctcatcttgt aaagacacat 300
 ataccggttt gatgaaacgc ctgagaacag cctcatcaag ctcttgtggc ctattagttg 360
 caccatttac aagtactctg tcactctccag cagactgtac accatcaaat tctattagaa 420
 attcagtttt taggcgtcta ctatgcatct gctcccttc tcttctttca cacaaaaggc 480
 tatcaacttc atctataaaa attatagaag gttgaagttc tcgag 525

<210> 917
 <211> 707
 <212> DNA
 <213> Homo sapiens

<400> 917
 gaattcggcc aaagaggcct actcatacag ggacagccac catctgggtc aaggaagtct 60
 gggttccctg ctggtgggct ccacccctgc atggagtga ccaggcgaga aaggatgacg 120
 atgtttctca tgttgacacct ggacatgccc caggaaacaga gacttgccca ggtggcaaca 180
 ctggcacaga tgttgacggc tgcccaactg gtgccacact gagcagggag ccttggtgctg 240
 cacagggtg ggcctctctt ccagtttccct tcctgcaggc atccaaatac cctggaaggg 300
 atttaacccc tgaattccag agggaagaaa gaagaacagt gaagaagtag aactgggtttc 360
 tgtatgggga gaggaaagtc ttagggacag ctgcaggcgg ggtctcaggc tgctccttgg 420
 caccagctac acagtagtga gctttcccag ctttaccgat gaggaagaag ttcaaataga 480
 tagacttcag cattttaatt attttccctat aaatgtattt atgtgtagta tgctagcacc 540
 agccagtaag ctgtgccaca catatgaatg ggaagcgag gcagttgtgc tcgtgtgagt 600
 ttctgcaggc ttgtgggtaa ttaccttgtg tgcacgcctg cacgtgcaga atagtcaactt 660
 tctgctgggtc agtttcttta tccacccatg gtgcccacac actcgag 707

<210> 918
 <211> 509
 <212> DNA
 <213> Homo sapiens

<400> 918
 gaattcggcc aaagaggcct agaggatagt tagagggtctc agccacagaa atacattggt 60
 gtgtttctgct gttataactt aatttcaagg gtttcacaca aacactgaac ttgaacatag 120
 aaaccacttt tgtaagctg tggagttatt tttttaatac aattacttcc caaaacaata 180
 tttctataat tagtcatctc ccaagttctt tggcctcaat gtccttattt gtaaaataag 240
 aaaattgaat tcgatcattt ctaaggatct gccaaagaag accaattgca gggatctggg 300
 attgtttag tagttagttt cctgcagtaa atgagtgggt ggccaacaag cgatatcttc 360
 agtaccacca agctgacttt ttggtttctt cctcctctg tccttctctg gttcttgcaa 420
 gagatgtaga aaracagtct tatcttacta ggaggctaac tttagggagg catagcttct 480
 gaagatatcc tcaatctctt tgcacttcg 509

<210> 919
 <211> 376
 <212> DNA
 <213> Homo sapiens

<400> 919
 gaattcggcc aaagaggcct agagaactaa aaggaaattc agtttggatg aattagcagg 60
 tcctggagct gaaggcccct caaatgtgaa atccaaaata aataaagtgt cttgtgaatc 120
 tggtcagcca gtgaaatcac aggggaaagg tgaagtggcc agtacaccct ctgacaattt 180
 ggatcctaag ttgactgccc ttgagccaag taagaccaca ggggctccca tttaccctgg 240
 cttccccaaa gtcacagagg ttcacatga gcagaaagcc tcaaactctt cagcatctca 300
 gagaagctta cagatgttta aggtgacccat gtccaggatt ctgaggctca aaatacagat 360
 gcaggaaaaa ctcgag 376

<210> 920
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 920
 gaattcggcc aaagaggcct aagaaacaca aagaaagtta gaacaactcc gggcagagct 60
 ggatgagatg tatgggcagc agatagtgca aatgaaacaa gaattaataa gacaacacat 120
 ggcacagatg gaggaaatta aaacacggca taaggagaga atggagaaatg ctttaagggtc 180
 atattcaaat attacagtta atgaagatca gataaagtta atgaatgtgg caataaatga 240
 actgaatata aaattgcaag atactaactc tcaaaaggaa aaactcaagg aagaactagg 300

```

actaatTTTta gaagaaaagt gtgctctaca gagacagctt gaagaccttg ttgaagaatt 360
gagctTTTtca agggaaacaga ttcagagagc tagacagaca atagctgaac aagaaagtaa 420
acttaaatgaa gcacataagt cccttagtac agtggaagat ttgaaagctg agattgtttc 480
tgcattctgaa tccagaaagg aactagaatt aaaacatgaa gctctcgag 529

```

<210> 921

<211> 651

<212> DNA

<213> Homo sapiens

<400> 921

```

gaattcgggc aaagaggcct agaaaatttg aagatgggtg ccactttctca gtcctttgga 60
cttttgcctt tctggacttc agcctccaga tgtgacattg tgatgactca gtctccagcc 120
accctgtctg tgactccagg agatagagtc tctctttcct gcagggccag ccagagtatt 180
agcgactact tacactggta tcaacaaaaa tcacatgagt ctccaaggct tctcatcaaa 240
tatgtctccc aatccatctc tgggatcccc tccagggttca gtggcagtggt atcagggtca 300
gatttcactc tcagtatcaa cagtgtggaa cctgaagatg ttggagtgtg ttactgtcaa 360
aatggtcaca gctttccgta cacgttcgga ggggggacca agctggaaat aaaacgggct 420
gatgtgcac caactgtatc catcttccca ccattccagt agcagttaac atctggaggt 480
gcctcagtcg tgtgcttctt gaacaacttc taccctaaag acatcaatgt caagtggaaag 540
attgatggca gtgaacgaca aaatggcgct ctgaacagtt ggactgatca ggacagcaaa 600
gacagcacct acagcatgag cagcaccctc acgttgacca aggacctcga g 651

```

<210> 922

<211> 210

<212> DNA

<213> Homo sapiens

<400> 922

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gaattcgggc aaagaggcct aagaaactgt tcaacagtcg ttaggttaga cgtaggaaga 60
ggaagacaaa tgaaaatgca cttttcaacg gtggttatat taacagggtg gatgataatt 120
ggatgcagca caactgatgc tccaccaact acagctacaa ctacagatgc tacagcagtt 180
aaagattcac cggctacaac atcactcgag 210

```

<210> 923

<211> 741

<212> DNA

<213> Homo sapiens

<400> 923

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gaattcgggc aaagaggcct actttggcct cagaagaggc tgtatttttt tcagattgta 60
ataaccaatt ttggatatatt aaatactgtt tatgaaacat ttagtagaat ttattacttc 120
tgttaactac agctagaata aacattggat aaataaaatt catgaaatat agaaaagtat 180
ctacaggaaa atgaatcatt aatttcccaa tttcagagggt gatcactgtg catttttata 240
aatattttaca cagatatattt tcttacataa ttgaaatcca ttgtaaagtt tttattttaat 300
atattgtaag catttttctt gtcattgaatt attccaacgt aatttttaag gtcacatgag 360
aatacccttct ttaacaaatc ttgtattgtt aaatatgtag attttttgaa agtggtttttg 420
attatcaaga aaagctgaca tatttttctt aagtcctcatg gaagacttga gtttgaaaga 480
aaatagcaaa ttgtgggttc ttaacaaaag aaatgtgttc tttagtaaatt tagctttcag 540
ttaatatattc agtcagtata attcacgaac tgaatctgt ctgaaacagt ttacacatat 600
tttcaaactc ttaagacata tttttcacia gtgctttgcc atgagttgta ataattacat 660
aataaataac actatctcag aaaaggaaat atgtcatcat ctttaagctac attattaaga 720
gattataata taaaactcga g 741

```

<210> 924

<211> 617

<212> DNA

<213> Homo sapiens

<400> 924

gaattcggcc aaagaggcct acagaatcct aactatttct gaggaactg tccaaaatgt 60
ggctgctttt aacaatggca agtttgatat ctgtactggg gactacacat ggtttgttt 120
gaaaattaca tcctggaagc cctgaagtga ctatgaacat tagtcagatg attacttatt 180
ggggatcccc aaatgaagaa tatgaagtgg tgactgaaga tggttatatt cttgaagtca 240
atagaattcc ttatgggaag aaaaattcag ggaatacagg ccagagacct gttgtgtttt 300
tgcagcatgg tttgcttgca tcagccacaa actggatttc caacctgccg aacaacagcc 360
ttgccttcat tctggcagat gctgggttatg atgtgtggct gggcaacagc agaggaaaca 420
cctgggccag aagaaacttg tactattcac cagattcagt tgaattctgg gctttcagct 480
ttgatgaaat ggctaaatat gaccttcag ccacaatcga cttcattgta aagaaaactg 540
gacagaagca gctacactat gttggccatt cccagggcac caccattggg tttattgcct 600
tttccaccaa tctcgag 617

<210> 925

<211> 238

<212> DNA

<213> Homo sapiens

<400> 925

gaattcggcc aaagaggcct aattccataa aaatactaaa ttaaaatatt tcaagaagga 60
aagaagggtta atctctgaga aactaataag agataaaata gcagtcaatg agtagagatg 120
cccgcattgga gatctttgct cacaaaacag tcctgctaag tgaaatagtc atagtaatta 180
caataataag tatgatggta gctaaacatt taatgagtag ctattatagg ccaaactc 238

<210> 926

<211> 737

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (61)

<220>

<221> unsure

<222> (117)

<220>

<221> unsure

<222> (124)

<220>

<221> unsure

<222> (151)

<220>

<221> unsure

<222> (178)

<220>

<221> unsure

<222> (201)

<220>

<221> unsure

<222> (211)

<220>

<221> unsure

<222> (352)

<400> 926

```

gaattcggcc aaagaggcct agtggaaacc atccacagga gagatgtgtg gacagacaca 60
nagggatgta ggggtgaggg tggaaacccat ccacaggaga gatgtggaca gacacanagg 120
gatntagggg tgaggggtgga aaccatccac nagagagat gtgtggacag acacagangg 180
atgtaggggt gaggggtgaa nccatccaca ngagaggtgt gtggacagac acagagggat 240
gtaggggtga ggggtggaaac catccacagg agaggtgtgt ggacagacac agagggatgt 300
aggggtgagg gtggaaacca tccacaggag aggtgtgtgt acagacacag anggatgtag 360
gggtgaggggt ggaacccatc cacaggagag atgtgtggac agacacagag ggatgacgag 420
gtgaacagat ggaaaattca gatcaaaagc tgcaaaggag aatacttgat ttgctttct 480
gtagaacttt tataaactta gttgccagat aatgtaacc atgaaatttg aagtatatac 540
tgctctccaa aatggagttg ctttgttaaa ttaagaaata ctatactgtt tttaaaatga 600
gatatgtaat ggatggtttt atgcttacc aaattgacct gctacaggcg tttgttttg 660
gtttgggttg gtttgggttg gtttgtttt tccctgagg gataaaggga gtcaggatca 720
acagtactgg cctcagag                                     737

```

<210> 927

<211> 829

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (443)

<400> 927

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gaattcggcc aaagaggcct aatcagttat cctctccac tccgtgcctg ggaagtacca 60
acgggtactg aaacgtaatg agtaatgtct agagattttc tccacaggat agaaacaaag 120
ctcaaagagg cagcaagttg aagaaagtgt gacactgttt tattttagg attttttct 180
cttttttaaa ataaatatac gtgtagagag acagggtctc ctttgttgcc ccaggctgat 240
ctcgaactcc tgagctcaag ctgtcctccc acctcagcct cccaagggtc gggatcactg 300
gcatgagcct ctgcacccag cccttaggat tttttttct tttttaaata ttaattatt 360
ttatatatat ttttaagttc cagggtacat gtgcaggatg tgcaggtttg ttacataggt 420
aaacgtgtgc catggtggtt tgntgcacct gtcacctgt cactaggcat gaggaccagc 480
atgcatttag tcttttccct aatgttctcc atgccccctg gccagccct ctcccaacag 540
gccccagtga gtgtgtgtcc cctccccgga tttttttct taaggaaaca caccacatca 600
ggcggttgaag tgagtgtatt gactgtctga ggtttgtgtg cactttttaa ccagaagtca 660
tggctgggga cacaaaagca cctccttgcc tatgtagttt tgttccctta ctgctttaa 720
caagcaagat gtggtttgca ttcctttcgc tgctggtgtt gttggtttg tgtttctcaa 780
cagaaataac ttgccttgcc tttgctctca aggtgtgtga agccccca 829

```

<210> 928

<211> 542

<212> DNA

<213> Homo sapiens

<400> 928

```

gaattcggcc aaagaggcct aagttttagt tccttgatt attgagattc agagcttcat 60
tttatgttgg tcattaggtg aatattactc attttccctc aagagaagct cataagtgtg 120
tgtgggtgtg agagcacgat ggtgcctgtg ttctgtgaat gtgtccatat gtgtctgtaa 180
gagagacaga gaccaagaac ttgcccaatt ttagaaatac actaatgtgc agttgttgcc 240
ttttgtctgt attgaaggcc cattgaatga ctaatccagg ctggaagcat tcccatgtgg 300
gtgtctgagt ccatgagcca agcctgaggg gacagtgagt ctccaggtct gccacactgg 360
tgcaccttgc tggcacggtg cctcaggaag gtggcgactc aggtgggctc tgagttatat 420
tttaactcag ctgctcagtt cccagggcac atttctggat cagaacccat gggaaacagg 480
aggtactaag tgcaatgtct tagcattctg caaatggag atctgttgtc cagcagctcg 540
ag                                     542

```

<210> 929

<211> 693

<212> DNA

<213> Homo sapiens

<400> 929

```
gaattcggcc aaagaggcct aaaagaattg ggtataaaag tagatacaac acttctagat 60
tcctataatt acagtggaac agaaaattta aaagataaaa agatctttaa tcagttagaa 120
tcaattgttg attttaacat gtcattctgt ttgactcgac aaagtccaa aatgtttcat 180
gccaaagaca agctacaaca caagagccag ccatgtggat tactaaaaga tgttggtta 240
gtaaaagagg aagtagatgt ggcagtcata actgccgcag aatgtttaa agaagagggc 300
aagacaagtg ctttgacctg cagccttccg aaaaatgaag atttatgctt aaatgattca 360
aattcaagag atgaaaattt caaattacct gacttttctt ttcaggaaga taagactgtt 420
ataaaacaat ctgcacaaga agactcaaaa agtttagacc ttaaggataa tgatgtaac 480
caagattcct cttcagcttt acatgtttcc agtaaagatg tgccgtcctc attgtcctgt 540
cttcctgcgt ctgggtctat gtgtggatca ttaattgaaa gtaaagcacg ggggtgattt 600
ttacctcagc atgaacataa agataatata caagatgcag tgactatata tgaagaaata 660
cagaacagtg ttgttctaga tggggaactc gag 693
```

<210> 930

<211> 549

<212> DNA

<213> Homo sapiens

<400> 930

```
gaattcggcca aagaggccta ataaagtttt tctactacta tggcaatttt caaaaacca 60
aagcttttat ttatcttctt cttgatcctc tctttggtcc ttgtatctca atgctatgat 120
caaaacccta ggggttacca agaccctcag gagaactaa gagagtgcga acaacgttgt 180
gagagacaac aaccaggaca acagaaacag ttgtgcaaac aacgttgtga acaacagtat 240
aggaaagagc aacaacaaca acatggaggg gagactggtg aagatgatct aggcaatcgt 300
gggctgata agagctacaa aagattgcaa gaatgccaac gtaggtgcca gagtgaacaa 360
cagggccaac gactacaaga gtgtcaacaa cgttgtcaac aagagtacca aagagagaaa 420
ggacaacacc aaggtgaaac taaccacagc tgggaacaac aagaaaaatc aaacaatcca 480
tacttattcg agtctcagcg attcaggtct cgattcagag ctagtcatgg tgatttccga 540
atcctcagag 549
```

<210> 931

<211> 487

<212> DNA

<213> Homo sapiens

<400> 931

```
gaattcggcc aaagaggcct actaagataa ctttgggtatt taattctgtc ttacaggatg 60
ttgttcactt atcaaatagt gttacctaaa gatataatga gtgtgctatt ttatcagatt 120
attgatgaaa gtataaaatt aacatcatca gctataccct gcagatcttc ataacatgat 180
ttgattaccc catctgtcac cattaggcaa gaccctaata tatttcataa aaatcagcag 240
cactttaagg gaaactctg ctgccatgaa ggaaaatata ttaatatatt ctggcttgaa 300
aaattagtggt ttttctgttg tttgtttttt aataaatttg gctttctatg tgattttatg 360
tgtagggttg ctctatgctg taggaggtta tgatggagca tcacgtcagt gtcttagcac 420
agtagaatgc tataatgcta caacaaatga gtggacctat atagcagaaa tgagcaccag 480
gctcagag 487
```

<210> 932

<211> 169

<212> DNA

<213> Homo sapiens

<400> 932

```
gaattcggcg ccgcgtcgac cctgcctcga gtgggaaatc atgcaactac tcagaatgtg 60
tcctcctcat ctaatgctca tctgtttaat ggtgatgcct cgcgtacagg atctgggttac 120
ctgtgcagtt gtgaataccc agaggttggg cagatcagtg tctctcagag 169
```

<210> 933

<211> 877
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (255)

<220>
 <221> unsure
 <222> (309)

<220>
 <221> unsure
 <222> (320)

<400> 933
 gaattcggcc aaagaggcct acacagataa aattcgagag catggggagc cttttatcca 60
 ggcgtgtntg acttttttaa agagacggtg tccttctatt ttggcgagac ttgccccaga 120
 aaaagaccag cccaaaagtg ctcaacttcc tccagaaact ttggcgacaa tgttggcctg 180
 tctgcaagct tgtgcaggga gtgttttcca ggagctatca gaaactatcc tcaccatggt 240
 agccaattgc agtantgtta tgaataaggc cagacaacca ccacctggag ttatgccaaa 300
 aggacgtcnt cctagtgcctn gcagcttaga tgccatttct cctgttcaga ttgacctctc 360
 tgcgtgaatg acatctctta gtataggtgg ttcagctgcc cctcacaccc agagtatgca 420
 gggtttttct ccaaatttgg gttctgcatt cagtacctct cagtcaccag caaaagcatt 480
 tccacctctt tcaaccccca atcagaccac tgcattcagt ggtattggag gactttcatc 540
 acagcttcca gtaggtggtc ttggcacagg cagcctgact ggtataggaa ctggtgctct 600
 tggactccct gcagtgaata acgacctttt tgtacagagg aaactgggca cctctggact 660
 gaatcagcct acattccagc agagtaagat gaaaccttcg gacttgtctc aggtgtggcc 720
 agaggcaaac cagcacttta gtaaagagat agatgatgaa gcaaacagct atttccagcg 780
 aatatataat catccaccac atccaaccat gtctgttgat gaggtattag aaatgctgca 840
 gagatttaaa gactctacta taatgaggga actcgag 877

<210> 934
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 934
 gaattcgcgg ccgcgtcgac gggcagggga ggtgataagg ccttagaact gggaaatctag 60
 attcgggatc tgatcacttg actgagcaaa cttgctcttt ctttttattt aaaacacaaa 120
 acaaaacttc ctgaactaaa gtcacagtac agaatagaat gggatggaca gaaagactca 180
 agagggcgct cgag 194

<210> 935
 <211> 161
 <212> DNA
 <213> Homo sapiens

<400> 935
 gaattcggcc aaagaggcct agggcagaga aaagcagtgc ttagagaaaa atttatagga 60
 ctgactgcat atattaggaa agaagatcta aaatcaatca tctaagcttc catttttagaa 120
 aactagaaga gcaaatgaaa cccaaagtaa gtgttctcga g 161

<210> 936
 <211> 108

<212> DNA

<213> Homo sapiens

<400> 936

atgcgagcgg ggctgaatac atccacttct gcacgtggtg gaaaaaagg acagtgtcca 60
 ctggggccta gtggccagtg gaaccacacc caacactgca ggctcgag 108

<210> 937

<211> 214

<212> DNA

<213> Homo sapiens

<400> 937

gaattcgagg ccgcgtcgac ctcaagcaca gctttcttca caaaagatgg agtctttctc 60
 tgctgtgcca cccaccaaag agaaagtgtc cacacaggac cagcccatgg caaacctatg 120
 taccctatct tcaactgcaa acagttgcag tagctctgcc agcaacaccc cgggagctcc 180
 agaaactcac ccatccagta gtccaccct cgag 214

<210> 938

<211> 512

<212> DNA

<213> Homo sapiens

<400> 938

gaattcgagg aaagaggcct agttgtccag attggtcttg aactcctggg ctcaagccgt 60
 ccacctgcct cagcctccca aagcgttgag attacacaca ggagccacca ctcccagctg 120
 ctaatttggt tttatacttt cttttgtgtt tattaaactc atttttatgt aatatgtagg 180
 atagagttag tagttatcaa ataagtggca gcttttaccg catcgagatt gttaacttaa 240
 cctagttgaa cactagaggg acttcaaact aatcactgaa gtttgagtgc agtagtatat 300
 tcagtagtat atactttgtt taaaagtgca gaaccacaca gtttttttcc cccaactctg 360
 tggttttcat aagactaagt attatgccta aaattttacc tggtaactta tttgggtaat 420
 taattctcag gttaatagac catatataaa atgtaacctc tgccaatata tgtatatcaa 480
 agcaaaaaac ctttgttcat ggccccctcg ag 512

<210> 939

<211> 160

<212> DNA

<213> Homo sapiens

<400> 939

gaattcgagg aaagaggcct agcagaacta ctatttgaaa agatcacaga ctttgggggt 60
 gaattccagc tctgcttctt acttgctgca ggactttgga cctcttaagc ctcattttcc 120
 tcatataaaa atgagaatag gccgagcccc gttgctcgag 160

<210> 940

<211> 121

<212> DNA

<213> Homo sapiens

<400> 940

gaattcgagg ccgcgtcgac cgagcagggg gcctttatat caaaattttc tgaaaccatt 60
 cctgcaggac tttatgtgga tccgtatgag ttggcttcat tacgagagag cgttcctcga 120
 g 121

<210> 941

<211> 208

<212> DNA

<213> Homo sapiens

<400> 941

```

gaattcggcc aaagaggcct agagaagctg atcagtaagt ttgacaagct tccagtaaag 60
atcgtaacaga agaatagatcc atttgtggtg gactgctcag ataagcttgg gcgtgtgcag 120
gagtttgaca gtggcctgct gactggcggt atttgtgggg gggacaccac tgagcatatc 180
cagaccact tcgagagcaa gactcgag                                     208

```

<210> 942

<211> 291

<212> DNA

<213> Homo sapiens

<400> 942

```

cctaaaccgt caagcgattc tgcctcagcc tcccagtag ctgggattac aggcattgtgc 60
taccattcct ggctaatttt tgtactttta gtagagacag ggttttgcca tgttggccag 120
gctgggtctcg aacttccgac ctcaagtgat ccaccactt tggcctccca aagtgtctgg 180
atgacgggtg agccactgca cctggccaag agggctgata gtaaattatt gcaagtgaag 240
aaactaacga tgcaaatgaa aggggtagct atagaagcca agcccctcga g          291

```

<210> 943

<211> 200

<212> DNA

<213> Homo sapiens

<400> 943

```

gaattcggcg ccgcgtcgac ataaaatcca aatacaattt ttttttttg tagaaaaaag 60
agaaaaaagc agggtaagaa gagaaagtgg tggagctgag ctgggcagag tggctctttt 120
agaagcgatg acatttacac ataggctact atggagaggg ccatgcagac acctggagga 180
gtgccaccaa caggctcgag                                     200

```

<210> 944

<211> 895

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (642)

<400> 944

```

gaattcggcc aaagaggcct aagaaaacca actggaaaaa aaaatgaaat tccttatctt 60
cgcatttttc ggtggtgttc accttttatc cctgtgctct gggaaagcta tatgcaagaa 120
tggcatctct aagaggactt ttgaagaaat aaaagaagaa atagccagct gtggagatgt 180
tgctaaagca atcatcaacc tagctgttta tggtaaagcc cagaacagat cctatgagcg 240
attggcactt ctggttgata ctgttgacc cagactgagt ggctccaaga acctagaaaa 300
agccatccaa attatgtacc aaaacctgca gcaagatggg ctggagaaag ttcacctgga 360
gccagtgaga atacccactt gggagagggg agaagaatca gctgtgatgc tggagccaag 420
aattcataag atagccatcc tgggtcttgg cagcagcatt gggactctc cagaaggcat 480
tacagcagaa gttctggtgg tgacctctt cgatgaactg cagagaaggg cctcagaagc 540
aagaaggaag attgttgttt ataaccaacc ttacatcaac tactcaagga cgggtgcaata 600
ccgaacgcag ggggcgggtg aagctgcaa ggtgggggct tnggcattc tcattcgatc 660
cgtggcctcc ttctccatct acagctctca cacaggatt caggaatacc aggatggcgt 720
gcccaagatt ccaacagcct gtattacggt ggaagatgca gaaatgatgt caagaatggc 780
ttctcatggg atcaaaattg tcattcagct aaagatgggg gcaaagacct acccagatac 840
tgattccttc aacactgtag cagagatcac tgggagcaaa tatccagaac tcgag          895

```

<210> 945

<211> 296

<212> DNA

<213> Homo sapiens

<400> 945

```

gaattcgcgg ccgcgctcgac tgaattctag acctgcctcg agccatgcag ctgtgctggg 60
tgatcctggg ctccctcctg ttccgaggcc acaactccca gccacaatg acccagacct 120
ctagctctca gggaggcctt ggcggtctaa gtctgaccac agagccagtt tcttccaacc 180
caggatacat cccttctctca gaggctaaca ggccaagcca tctgtccagc actggtaccc 240
caggcgagg tgtccccagc agtggaagag acggaggcac aagcagagat ctcgag 296

```

<210> 946

<211> 481

<212> DNA

<213> Homo sapiens

<400> 946

```

gaattcggcc aaagaggcct agtctttagg gagttccctt gatctcttga aagagacaca 60
gcccatttta cactatttcc tggatttcac cagcatagta tagttttttt ctgtaagtec 120
ctcattctta tgtaataaca ggtggaactg aggtttgaag aacctcagtg gccatcctg 180
atgacattgg agactcaaag agacaagaga gagtaggggt taaaacctga gctttaagac 240
tcccactagc ttcgtgtcct ttggcatgtt aacgtgcctc agtttccctca tctgtataat 300
ggggatatat gaaaggcacc agtcctaagg tgaacattaa gtgagatgat tctagttaca 360
gacttagaac aatttccagc acatagttaa atatccagga aattctggta ctgttatgtg 420
tgggtgagct gacctggatg tagatgtttt cctctctctt gctgaccttc cgcctctga 480
g 481

```

<210> 947

<211> 292

<212> DNA

<213> Homo sapiens

<400> 947

```

gaattcggcc ttcattggcct aggagaggaa cataactgaa acgttttatag taaggattta 60
agagccaaga gggtcagaca cacacacaca cccatacaca cagcacaga atgagaaatg 120
gagaggcata ttttgacatt cttccattca tctctctgcc tattcattca ttcaaaaatg 180
cttattgata gcctactcga tgagacgcac tgttctagcc actggggctc cagcagtga 240
caggatgagc aaggctcctg tttctctaaa gcttacgctc attccactcg ag 292

```

<210> 948

<211> 690

<212> DNA

<213> Homo sapiens

<400> 948

```

gaaagaaaa acctaaagg atcaataatg gtgtcttctg gttgcagaat gcgaagtctg 60
tggtttatca ttgtaatcag cttcttacc aatacagaag gtttcagcag agcagcttta 120
ccatttgggc tggtagggcg agaattatcc tgtgaagggt attctataga tctgcgatgc 180
ccgggcagtg atgtcatcat gattgagagc gctaactatg gtcggacgga tgacaagatt 240
tgtgatgctg acccatttca gatggagaat acagactgct acctccccga tgccttcaaa 300
attatgactc aaagggtgca caatcgaaca cagtgtatag tagttactgg gtcagatgtg 360
tttctgatac catgtcctgg aacatacaaa taccttgaag tccaatatga atgtgtccct 420
tacatttttg tgtgtcctgg gaccttgaaa gcaattgtgg actcaccatg tatatatgaa 480
gctgaacaaa aggcgggtgc ttggtgcaag gacctcttc aggctgcaga taaaatttat 540
ttcatgccct ggactcccta tcgtaccgat actttaatag aatatgcttc tttagaagat 600
ttccaaaata gtcgccaac aacaacatat aaacttccaa atcgagtaga tggtagtgga 660
tttgtggtgt atgatgatgc tatactcgag 690

```

<210> 949

<211> 337

<212> DNA

<213> Homo sapiens

<400> 949

```

gaattcggcc aaagaggcct aagtaccctt gacgacactg aaaggcttgt tgagatggaa 60

```

```

caagtcctct cttcacttaa caagatgaga aagacaatag gtggtgtggc tctctggcga 120
cagcaaatct gcgcaattgc aagggttcgc ttgttaaagt taaagcatga aagaaaagct 180
cttttagcac tgctattaat tctaattggc ggattttgcc ctcttcttgt ggagtatacc 240
atggtgaaaa tatatcaaaa cagttacacc tgggaacttt ctcttcattt gtatttcctt 300
gtcctcggac aacaaccaca tgacctccc actcgag 337

```

<210> 950

<211> 334

<212> DNA

<213> Homo sapiens

<400> 950

```

gaattcggcc ttcattggcct acggaatgaa gactacaagg agatcaccca gaaactctgc 60
ttcccaatgg ggagaaatgt tttttctcat gattatgtat ttggtgtgg cgatttcaac 120
taccgcattg atcttactta tgaagaagtc ttctattttg ttaaagccca agactggaag 180
aaacttctgg aatttgatca actacagcta cagaaatcaa gtggaaaaat ttttaaggac 240
tttcacgaag gagccattaa ctttggaacc acctacaagt atgacgttgg ctcagccgcc 300
tacgatacaa gcgacaaatg cgcacccct cgag 334

```

<210> 951

<211> 140

<212> DNA

<213> Homo sapiens

<400> 951

```

gaattcggcc aaagaggcct acagccttga tattcagggt ggattgtaa atataaattt 60
ttgtgagatt tcaaagatta agattatctt gataacatta ttacagatt taaaagatgt 120
ggttatcacg cgctctcgag 140

```

<210> 952

<211> 180

<212> DNA

<213> Homo sapiens

<400> 952

```

gaattcggcc ccgcgtcgac aaagtaaate cagatgaatt tgctgtggca cttgacgaaa 60
ctcttgagga ctttgcgttc ccagacgaat ttgtctttga tgtttgggga gtcattgggt 120
atgccaaacg aagaggatta tgatgtgtac actccatctc tgaagaaaca acccctcgag 180

```

<210> 953

<211> 528

<212> DNA

<213> Homo sapiens

<400> 953

```

gaattcggcc aaagaggcct agaaagagag ataactggat ttaagaacct cttaaaaatg 60
acaagaaaga agttaaatga atatgaaat ggagaattta gtttccatgg agatttaaaa 120
actagtcaat ttgaaatgga tattcagatt aataagctaa aacataaggt tgaagaagaa 180
aggaaaaaac acagaaataa tgaaatggaa gtatcagcaa acatacatga tgggtgctact 240
gatgatgctg aagatgatga tgatgatgat ggattaattc aaaaaagaaa gaggggagaa 300
actgatcatc agcaatttcc caggaaaggaa aataaagagt atgctagtag tggctcctgcc 360
ttgcaaatga aggaagtaaa gagcactgaa aaagaaaaac ggacctcgaa agaactctgtg 420
aattcaccag tgtttgggaa ggccagttaa ctaactgggt gcctgctaca agtggatgat 480
gacagcagtt taagtgaat agatgaggat gaaggaaggc tcctcgag 528

```

<210> 954

<211> 132

<212> DNA

<213> Homo sapiens

<400> 954
 gaattcggcc aaagaggcct attagaatat aattaacatt ttgttgtaaa cattttaate 60
 tgaacaaaac cctttttatt tggagactct ctgtgagaaa caatgctcca cgtttcctgg 120
 ctgtgtctcg ag 132

<210> 955
 <211> 756
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (135)

<220>
 <221> unsure
 <222> (188)

<400> 955
 gaattcggcc aaagaggcct aactttacag ggacaaatca tagaacagtc aggtacaatg 60
 actggtggtg gaagcaaagt aatgaaagga agaattgggtt cctcacttgt tattgaaatc 120
 tctgaagaag aggtnaacaa aatggaatca cagttgcaaa acgactctaa aaaagcaatg 180
 caaatccnag aacagaaagt acaacttgaa gaaagagtag ttaagttacg gcatagttaa 240
 cgagaaatga ggaacacact agaaaaatct actgcaagca tccagcggtt aatagagcaa 300
 gaatatttga atgtccaagt taaggaaactt gaagctaatt tacttgctac agcccctgac 360
 aaaaaaaaagc agaaattgct agaagaaaac gttagtgcct tcaaaacaga atatgatgct 420
 gtggctgaga aagctggtta agtagaagct gaggttaaac gcttacacaa taccatcgta 480
 gaaatcaata atcataaact caaggcccaa caagacaaac ttgataaaat aaataagcaa 540
 ttagatgaat gtgcttctgc tattactaaa gcccaagtag caatcaagac tgctgacaga 600
 aaccttcaaa aggcacaaga ctctgtcttg cgtacagaga aagaaataaa agatactgag 660
 aaagaggtgg atgacctaac agcagagctg aaaagtcttg aggacaaaagc agcagaggtc 720
 gtaagaata caaatgcccc cgagggttctc cctata 756

<210> 956
 <211> 656
 <212> DNA
 <213> Homo sapiens

<400> 956
 gaattcggcc aaagaggcct aaaatgttaa aaaatcaagc aacttctgct acttctgaaa 60
 aggataatga tgatgaccaa agtgacaagg gtacttatac cattgagtta gagaatccca 120
 acagtgagga agtggaagca agaaaaatga ttgacaagggt gtttggagta gatgacaatc 180
 aggattataa taggcctggt atcaacgaaa aacataaaga tctaataaaa gattgggctc 240
 tcagttctgc tgcagcagta atggaagaaa gaaaaccact gactacatct ggatttcacc 300
 actcagagga aggcacatct tcatctggaa gcaaacgttg ggtttcacag tgggctagtt 360
 tggctgccaa tcatacaagg catgatcaag aagaaaggat aatggaattt tctgcacctc 420
 ttcctttaga gaatgagaca gagatcagtg agtctggcat gacagtgaga agtactggct 480
 ctgcaacttc cttggctagc cagggagaga gaaggagacg aactcttccc cagcttccaa 540
 atgaagaaaa gtctcttgag agccacagag caaaggttgt aacacagagg tcagagatag 600
 gagaaaaaca agacacagaa cttcaggaga aagaaacacc tacacagata ctcgag 656

<210> 957
 <211> 716
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (54)

<400> 957

```

gaattcggcc aaagaggcct aaggtgagag taatgactaa ctccaaagat tgnctggaa 60
aaaaaagaga agaccccaaa ccaggcccta aaaaaccaa agagaaagt gatgctctat 120
cacagtttga tctcaacaat tatgcaagt ttgttataat tgatgatcat cctgaagtaa 180
cagtaattga agatccccag tcaaatttga atgatgatgg ttttactgaa gtggtatcca 240
aaaaacaaca aaaacgttta caggatgaag aacgccgaaa gaaggaagaa caagtcatac 300
aggctctggaa caaaaagaat gcaaatgaaa aaggaagaag ccagacttct aagcttcttc 360
caagatttgc caaaaaacag gctacaggga tccagcaagc acagtcttca gcctcagttc 420
cacctctagc ttcggctcca ctccacctt caacctcagc ttcagttcca gcctcaacct 480
cagctccact tccagcaacc ttaactccag ttccagctc aacctcagct cgggttccag 540
cctcaacttt agctccagtt ctggcctcaa cctcagctcc agttccagcc tcacccttag 600
ctccagtttc agctcagcc tcagtctcag cttcagttcc agcctctact tcagctgcag 660
ctataacctc ttcttcagct ccagcctcag cccagctcc aacccccaca ctcgag 716

```

<210> 958

<211> 432

<212> DNA

<213> Homo sapiens

<400> 958

```

gaattcggcc aaagaggcct acaaacacc atttttaaca tgcaagcgg agttccatta 60
gccagtgtta ttgtgaaaga atctctgaca gaagaagatg tgttaaactg tcaaaaaaca 120
atatacaact tagttgatat ggaagaaaa aatgatcttc tacctatttc cacagttggg 180
acaagaggaa agggccctaa aagagatgaa caataccgta tcatgtggaa tgaattagaa 240
acccttgtca gagcccatat caacaactca gagaacatc aaagagtctt ggaatgtctg 300
atggcatgca ggagcaaacc ccagaagag gaagaacgaa agaaacgagg aagaaagagg 360
gaagacaaag aggacaagtc agagaaagca gtgaaagatt atgaacagga aaagtcttgg 420
caagatctcg ag 432

```

<210> 959

<211> 481

<212> DNA

<213> Homo sapiens

<400> 959

```

gaattcggcc aaagaggcct atgatttttc agacctgctc cttagtaata atactagcta 60
gtcagcattc acgcctacca ggacacaaaa atctctttca aaactactca gaaaagaaag 120
tcattactca ggaatgatgt ccattcagga gaaatcaaaa gagaattcct ccaaagttac 180
taaaaaaagt gacgataaga attcagaaac agaaattcag gattctcaaa agaattctagc 240
aaaaaaatca ggtccaaagg agactataaa atcacaggct aaatctttcca gtgaaagtaa 300
aataaatcag ccagaattgg aaacacgcat gagtacaagg tcatcaaagg cagcatctaa 360
tgataaagct actaaatcca ttaataaaaa tacggtgact gtgaggggat attcacaaga 420
atctacaaaa aagaaattat ctcagaaaaa attagtacat gaaaacccta aagcactcga 480
g 481

```

<210> 960

<211> 123

<212> DNA

<213> Homo sapiens

<400> 960

```

gaattcggcc aaagaggcct actgtgggtt ttggttaagg gtctgtggag attctctggc 60
taccctagaa aaaaagaaat attcatgcta ccattagttt tcttttgtaa ggttaatctc 120
gag 123

```

<210> 961

<211> 324

<212> DNA

<213> Homo sapiens

<400> 961

```

gaattcggcc aaagaggcct acgagtcctg tgtggatcaa acattatgct atttgggtgtg 60
actagcagga cgccactgac tgtgcccttg ccaatggtga tatatttgca attaatTTTA 120
agaaatttct cagtaaaggc ttcttcttct tcagaagttg aagacacaac tctcgcaggc 180
cgaataccgc tcacagtcga tgcggggggt gcttcttttg gatgggctac atctggagtc 240
gtgggtttat caaattcagc ctccgatgac gttggcgaca gagggcctac agggctgagg 300
gatggggaac tctcaacct cgag 324

```

<210> 962

<211> 517

<212> DNA

<213> Homo sapiens

<400> 962

```

gtggaaagaa aagtttgaac aagctgaaaa aagaaaactt caagaaacaa aagagttaca 60
gaaagcagga attatgtttc aaatggacaa tcatttacca aaccttggtta atctgaatga 120
agatccacaa ctatctgaga tgctgtata tatgataaaa gaaggaacaa ctacagttgg 180
aaagtataaa ccaaatcaa gccatgatat tcagttatct ggggtgctga ttgctgatga 240
tcattgtact atcaaaaatt ttggtgggac agtgagtatt atcccagttg ggggaagcaaa 300
gacatatgta aatggaaaac atattttgga aatcacagta ttacgtcatg gtgatcgagt 360
gattcttggg ggagatcatt atttttagatt taatcatcca gtagaagtc agaaaggaaa 420
aaggccatct ggaagagata ctccataag tgagggtcca aaagactttg aatttgcaaa 480
aaatgagttg ctcatggcac agagatcaca actcgag 517

```

<210> 963

<211> 163

<212> DNA

<213> Homo sapiens

<400> 963

```

gaattcggcc aaagaggcct acagtttggg agcttatcct tttttatata agttatattt 60
ttcaaatatt agtatTTgaa tgagtcagaa tatatacttt gccatcctg tctgcttcat 120
atttttttta gcagacctca tttttagaag tgaaaacctc gag 163

```

<210> 964

<211> 181

<212> DNA

<213> Homo sapiens

<400> 964

```

gaattcggcc aaagaggcct actttccaaa tccggttgc tattttctgc cctccacttg 60
cttgaagtct cagccgcctt caactcaatt aacaattctc ccataaagtc acttttcttt 120
ggctttccag atgcatagaa gtctcctctg ccagatcctt ctctcttctg ctgacctcga 180
g 181

```

<210> 965

<211> 138

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (56)

<220>

<221> unsure

<222> (104)

<400> 965

```

gaattcggcc aaagaggcct agtggagatg gataatagaa aaattctctg tatctngatt 60

```

gcagtggtga ttgcacaggc acacactctc acacgctctc tcangatagg aggcctcctc 120
ccacctcag ctctcgag 138

<210> 966
<211> 134
<212> DNA
<213> Homo sapiens

<400> 966
gaattcggcc aaagaggcct aagagattag gtgattagtg acaatcagtt gtaacttagc 60
actgttaggc tgcaaacccc ttgctccttc ctttcaccca aactatgttg attttcctcc 120
cttacctcct cgag 134

<210> 967
<211> 205
<212> DNA
<213> Homo sapiens

<400> 967
gaattcggcc aaagaggcct aggttgggtg aagtttgggt tgtttctact ctttggtcac 60
tatgaacact tgtgtacaat tgtttatgtg gacatatgtt ttcatttctc tcagaaataa 120
tggaattgct gccctgttt tcagtcctca aaaaatggag aaagtgaatt gccacctaaa 180
ctttgggtatc accggtcccc tcgag 205

<210> 968
<211> 190
<212> DNA
<213> Homo sapiens

<400> 968
gaattcggcc aaagaggcct aagataaatt aacagaacat ttgtctattg tctcttattt 60
atatattcat tcattcattt cagtgggctg atggataggg gtataatcca atactatgtt 120
atattatttg ttgctcaaat cattccagct atggccactg gaagctcttt cagttgctcc 180
ccatctcgag 190

<210> 969
<211> 209
<212> DNA
<213> Homo sapiens

<400> 969
gaattcggcc aaagaggcct agttgcttct tgtttgtttt tctttcaatg gtcaggcccc 60
tcttctgtag ggctgttggt gtttgctggg cattcacttc aggcactatt catctggctc 120
gctcctgtgc ctggagccag tcactcaagg aggctggaaa acagcaaaga tgggtgcttc 180
ctccttctc tggaactct gacctcgag 209

<210> 970
<211> 562
<212> DNA
<213> Homo sapiens

<400> 970
gaattcggcc aaagaggcct actcacttct gccccgggca ctgcgtccag cagcagaggg 60
gacagggggc aggtgtgtga ctgggttctt gggtagccag gctgaccag agggagcggg 120
agggcagagg tgaggagggg gaagatgttt ctgggcctac caaggttcaa caagagaacg 180
gagctgggaa tgtgactgct ggagcctgag aggtggagga gttctgatcc cccgttactt 240
cctagcattt tctcctcttg ccttaaaagt tccctgtatg tgaaacggga agtcctgaga 300
gtgtgtgttg gtggctgtgc gcacgcacac aagacgggag tcaccctgtg ettcctgccc 360
aagatactga cccattgaac ccccaaagca tctttctctc caciaagtec gtgggtgcctt 420
cctgggtggc tcgagacact aatggtgttg gggggctctg gaacagcttc tctatgtgtg 480

gattcgtgta aatgcgaaga gttcacatat aaagaagtga ctttgattct gtgattatat 540
tgatttggtgta cacagtctcg ag 562

<210> 971
<211> 171
<212> DNA
<213> Homo sapiens

<400> 971
gaccgtcgat tgaattctag acctgcctcg aaccccagtt tttttttaat ttccgatacc 60
agtaatccct acagaacctc aatgggcatg cagtgcctca tagtttactc ctgttttctc 120
attctgctac taccactcca cccatcaagt gtttctgcta atgaactcga g 171

<210> 972
<211> 119
<212> DNA
<213> Homo sapiens

<400> 972
gaattcggcc aaagaggcct agttttatcac cactctttga tcagaagtac ttagaactaa 60
aagtcaactt atcaagctta aagccatagg gttacactat gaaatttaac atactcgag 119

<210> 973
<211> 221
<212> DNA
<213> Homo sapiens

<400> 973
gaattcggcc aaagagagca gaattgttga atcctatgat aattttgtgc ttaatttatt 60
attatttttt tttcatccca ctctgttgcc cagcctggag tacagtggta caatctcggc 120
ttctcgcagc ctctgtcccc cgggggttcaa gtgactctcg tgcttcagcc tcccagtag 180
ctgggactac agacacccgc caccacgccc ggctgctcga g 221

<210> 974
<211> 188
<212> DNA
<213> Homo sapiens

<400> 974
gaattcggcc aaagaggcct aggtcctcgt ttcttttgc tcatttcacg tcttccatta 60
tagtggtttt aatatgctta ctccccagtc tcttattggc ccacattcaa accatttact 120
taagtagctt tagtgtgtct gagcctgtgt tatctcagcc tgctctgttc acatcagtct 180
ttctcgag 188

<210> 975
<211> 257
<212> DNA
<213> Homo sapiens

<400> 975
gaattcggcc aaagaggcct aaccgtcgat tgaattctag aactgtcctc catcctccga 60
acaagtagag agagcttcac ttccaagaat tccaagtttt cttgttaatg ctgtatgggt 120
acttcgggct aaagagaact ctgcttctta aaatcctctt gatttcttct tctgggagcc 180
tcgatggccc caggaagcca gcgggtcccag tcccgcagcc ttgccccaca accagccacc 240
acccgccaac actcgag 257

<210> 976
<211> 201
<212> DNA
<213> Homo sapiens

<400> 976

gaattcggcc aaagaggcct aaggagcgtg gaagctcaca aatgtgtaga gactgggtag 60
 agagcaagaa tctataaact gactccatcc aacagaaatt acaaagtgca agctgcagta 120
 ctaagcaaag tggtctcacag agtaggggaa gcaagacacc attcctactt aacgatgaaa 180
 ccaactcagc tggctactcga g 201

<210> 977

<211> 139

<212> DNA

<213> Homo sapiens

<400> 977

gaattcggcc aaagaggcct agtttttaag gtgaataatg ctcataaaat ttttacagct 60
 gtgtccttatg aaattctgtt tccttttttt ggttgcttat atgtattcta taaagacact 120
 gaaaggatgc aacctcgag 139

<210> 978

<211> 192

<212> DNA

<213> Homo sapiens

<400> 978

gaattcggcc aaagagtaag tacactgtaa ggtagaaga ggtcttgctc tcagagaata 60
 attaagacta gaaggcgaca ggacaagctt tggggaaaac cattgatgtt tgtttttttg 120
 tttgtttgtt tggttggttt gggttttttt gagatgaagt cttgctttgt tgcccggtgct 180
 gaagtactcg ag 192

<210> 979

<211> 240

<212> DNA

<213> Homo sapiens

<400> 979

gaattcggcc aaagaggcct acgtataacg ttgtaacaat tggttaagata ccaattttaca 60
 aatatggaaa tatatattag attcatttgg aggaggttgt atatgggata cgattggcat 120
 atgtttttca ttctgaaagt atcagttatt ttctgttat tatctgtggt aacattgctt 180
 gttttttttg ttgttggtga gacagagtct cgtctgtct ctgtcgccca ggcgctcgag 240

<210> 980

<211> 564

<212> DNA

<213> Homo sapiens

<400> 980

gaattcggcc aaagaggcct aaagatattt gaggaaagag cttcctgggt agaagaaatc 60
 atacctgcag aagctataag ggtaaccac ttgagagtgg ataaaagttt catggaacaa 120
 gaccttccaa gatttttata agatgtgtag ttgtgaatat ataaagttag ttacaaattc 180
 ccagggtcaa agaaattatg aattataaga ggtatacaga acagaagcag catttggtatg 240
 ccggataata ttattgtatt ttccttcatt ttctctgctg tagtttctga tgaagaacaa 300
 tcagtagtat acgttccagg aatttctgct gaaggaaatg tcagatcaag acacaagctg 360
 atgagtccaa aagctgatgt taaacttaag acttccaggg tgactgatgc ttcaatctcc 420
 atggagtccct taaaaggcac aggagattca gtagatgaac agaattcctg cagggggagaa 480
 ataaagagtg catcattgaa ggatttatgt cttgaagaca aaagacgcat tgcaaactta 540
 attaaagaac tggccggact cgag 564

<210> 981

<211> 191

<212> DNA

<213> Homo sapiens

<400> 981

```

gaattcggcc aaagaggcct acctgttctc ccaaaagacg aatgttttct tttttccgaa 60
tttgccctctc aatgtctctg ataactccgt cacgaagcct ctgctgggtc cactgctgct 120
tcacatgtac gccggccact gtggccgccc tcagcagcac cgagaggccc agcaccacct 180
tcgagctcga g                                     191

```

<210> 982

<211> 170

<212> DNA

<213> Homo sapiens

<400> 982

```

gaattcggcc aaagaggcct atgagtattt ttctcatgta ttcttgttac tacattttac 60
ttggagccag gatcttctct tggtgccag gctggctgga ctgcagtggc ctgaacacag 120
ctcaccacag catcaactat ttgactcaa gtaatcccc catcctcgag 170

```

<210> 983

<211> 744

<212> DNA

<213> Homo sapiens

<400> 983

```

gaattcggcc aaagaggcct atttagaaat ggaaaaatgt taacaaatgt ggcaattatt 60
ttggatctat caccctgcat cataactggc ttctgcttgt catccactcc taccacagga 120
cctacaccac ggtccactct tgggtccagt gaagcatttg cttctacttc tgcaccttcc 180
actagcctcc ccttttccac cagctcttct gctgcttcta ccagcaaccc aaattctgct 240
tcattgtcat cagtttttgc agggctccct ttgcccttac caccaacatc ccaaggccta 300
tccaacccga ctctgtaat tgctgggtgc tctactccca gcgttgccgg tccacttggg 360
gtgaacagtc ctcttttctc tgcgttāaaa ggttttctga catccaatga caccaattta 420
atcaactcct ctgctttatc ctctgctgtc acaagtgggc tggcttccact atcttctctt 480
actcttcaga actctgactc ttctgcttca gcccctaaca agtgcctatgc cccatcagcc 540
atccctaccc cacagaggac ttccactcca gggttggccc tgttcccagg cctgccgtct 600
cccgtggcta actcaacttc cactccctg acattgcctg tacagtctcc tttagccact 660
gctgcatcag cttccacgtc agtgccagtt agctgtggct cctcagcctc ccttttgcgt 720
ggccccacc caggtacact cgag                                     744

```

<210> 984

<211> 666

<212> DNA

<213> Homo sapiens

<400> 984

```

gaattcggcc aaagaggcct atgggaaaat aatgatcaac tcatgtttac ataaacaagc 60
tgactgcagg aatgaggagg ccctgggggc cctgggcact gcttatgttg ccaacattcc 120
accccagca agagctctaa gcagagccc gtgccgacct ttctcttcaa ggtcctgacg 180
ttgacatact ccctgctcct tctatagtca gaacaacgtg tccctaggag ctaatatctc 240
aggagggtct tattgtgccc ctaaggcaat tatttttttc tccctttttt tgtcatagtt 300
attagaactt ttccaaaaat aaaaccttga atgtaaacat ttatagaatt aatttacata 360
tgtggaaaaa aaatccagag ctgcttggat gaaagtatgg gtggtggtgt ggccaggcct 420
atgcctgtct tccctacaca cacaccacc ctagagccct acataaactc tgagatgtct 480
ccagagtaca gttggaaaac tcagctccag ggccgtataa ggaatttgca ttctctataa 540
ttttttttaa attgagatat aattgaaata gagtaaaaat ttaccctttt taacatccag 600
ttcaacacat aattgtgtat catcataaac aagatgtaca acagtttcat ccgcaccctc 660
ctcgag                                     666

```

<210> 985

<211> 517

<212> DNA

<213> Homo sapiens

<400> 985

```

gaattcggcc aaagaggcct aggaagggga catgctgacg ctgttcgacg gggacgggtcc 60
cagcgcccgga gtcttggtccc agctgcgggg acctcagccg cgccgcccgc ttctctcttc 120
tgggcccgcac ctcacactgc agtttcaggc accgcccggg ccccaaatc caggcctggg 180
ccagggtcttc gtattgcact tcaaagaggt cccgagggaac gacacgtgcc ccgagctgcc 240
acctccggag tggggcttga gaacggcatc ccacggggac ctgatccggg gcacgggtgct 300
cacctaccag tgcgagcctg gctacgagct gctaggctcc gacattctca cttgccagt 360
ggacctgtct tggagcgccg cgccgcccgc ctgccaaaag atcatgactt gtgctgacct 420
tggcgagatt gccaacgggc accgcaccgc ctgggacgcc ggcttccccg ttggctccca 480
cgtccagtac cgctgcctgc cagggtacag cctcgag 517

```

<210> 986

<211> 627

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (161)

<400> 986

```

gaattcggcc aaagaggcct aggagcagat gagagccctc ctgctgggac agagaattgg 60
gttctagtgg actctgtgct acacttaaac ctgtgagaca aaccgcccac tattttatta 120
tttaattatg caatgcctag ttctctaaatg gattggaggc naattaccgt aaattttgaa 180
acagcctata tgcagaaaat gataatgttg ccacctaaat gttttctgtc cccccaccc 240
tccccagggg aaatggtagg aaaatggtaa gtttcttagg gcaaagactg tgtcttctgt 300
ttcttttcat gcttaggata tggttctgtg catagtaggt actcagtaaa tgttcctaga 360
atcataaaat cctcaacaga tatgttactg agcatctgct ttctatgata agcactctat 420
cagatccttg ggatgcaaag gtaataaaga caaatccctt ttgcccaaag agctcaccat 480
caagttgggg gagggaaagt ggaattcaaa acatgttaat aaatcatcat agtactgtga 540
gataagtga attaagaagc tagttataaa gtatagggga aatagaggag taatcatgtc 600
tgaaaagtca ggaaagtcgt cctcgag 627

```

<210> 987

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (11)

<220>

<221> unsure

<222> (13)

<220>

<221> unsure

<222> (66)

<400> 987

```

gaattcggcc nangaggcct agagacagca gagcacacaa gcttctagga caagagccag 60
gaaganacca ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt 120
ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaaggtgcag ttttgccaag 180
gagtgcataa gaacttagat gtcagtgcac aaagacatac tccaaacctt tccaccccaa 240
atztatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat 300
tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact ggggtgcagag 360
ggttgtggag ccgctcgag 379

```

<210> 988

<211> 339

<212> DNA

<213> Homo sapiens

<400> 988

```
gaattcggcc aaagaggcct aagcacacaa gcttctagga caagagccag gaagaaacca 60
ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt ggctctcttg 120
gcagccttcc tgatttctgc agctctgtgt gaagggtgcag ttttgccaag gagtgtctaaa 180
gaacttagat gtcagtgcac aaagacatac tccaaacctt tccaccccaa atttatcaaa 240
gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat tgtaaagctt 300
tctgatggaa gagagctctg tctggacccc aagctcgag 339
```

<210> 989

<211> 396

<212> DNA

<213> Homo sapiens

<400> 989

```
gaattcggcc aaagaggcct aatgaaaaat taaaattgag cttttttatt agaaagacaa 60
cagtacataa ttaccacctt gctaaaggta ttcaataaaa aagtggagat atttttattc 120
ccaggtaatt gtcacataca gtctttcttc tctactcttg cttcattctc tttgtgtcac 180
tttagtatgt gtacctctcg ggtgctctct gtacattttt tctcctctat acaagtctgt 240
gccatggcct ctgctgtcat ttcttctgct ttgctcttca ccaggatttc gctgtgcccg 300
tttcttctgc tcccttttgc tgtaactacc aggacttctg ctccggcttc tccggctcct 360
ttctctctcg ccgtggcttc tgetgctccc ctcgag 396
```

<210> 990

<211> 316

<212> DNA

<213> Homo sapiens

<400> 990

```
gaattcggcc aaagaggcct aagccgtatt tgacaagtat aggtggctct atattataga 60
aatgggaata acattatttt tatttttatt ttttttgaag acagtgtctt gctctgtcgc 120
ccaggctaga gtgcagtggg gcagtcttgg ctactgcaa cctccgcctc ctgggttcga 180
gcaattctcc tgcctcagcc tctgagtag ctgggattac aggcacgcac caccacaccc 240
ggccagtttt tgtattttta gtagaaatgg gggttcacca tgttggctag gatggtctca 300
atctcctgac ctcgag 316
```

<210> 991

<211> 388

<212> DNA

<213> Homo sapiens

<400> 991

```
gaattcggcc aaagaggcct aggataatag tcaaattctt acctegctct ttcactgcta 60
gtaagatcag attgcgtttc ttccagttac tcttcaatcg ccagtttctt gatctgcttc 120
taaaagaaga agtagagaag ataaatcctg tcttcaatac ctggaaggaa aaacaaaata 180
acctcaactc cgttttgaaa aaaacattcc aagaactttc atcagagatt ttacttagat 240
gatttacaca atgaagaaag tacatgcact ttgggcttct gtatgcctgc tgettaatct 300
tgccctgccc cctcttaatg ctgattctga ggaagatgaa gaacacacaa ttatcacaga 360
tacggagttg ccaccactaa aactcgag 388
```

<210> 992

<211> 361

<212> DNA

<213> Homo sapiens

<400> 992

```
gaattcggcc aaagaggcct agagacagca gagcacacaa gcttctagga caagagccag 60
```

gaagaaacca ccggaaggaa ccattctcact gtgtgtaaac atgacttcca agctggccgt 120
 ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaaggtctag ttttgccaag 180
 gagtgtctaaa gaacttagat gtcagtgcac aaagacatac tccaaacttt tccaccccaa 240
 atttatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat 300
 tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact gggttctcga 360
 g 361

<210> 993

<211> 378

<212> DNA

<213> Homo sapiens

<400> 993

gaattcggcc aaagaggcct agagactaac ccagaaacat ccaattctca aactgaagct 60
 cgcaactctcg cctccagcat gaaagtctct gcgcaccttc tgtgcctgct gctcatagca 120
 gccaccttca tttcccaagg gctcgtctcag ccagatgcaa tcaatgcccc agtcacctgc 180
 tgctataact tcaccaatag gaagatctca gtgcagaggc tcgcgagcta tagaagaatc 240
 accagcagca agtgtcccaa agaagctgtg atcttcaaga ccattgtggc caaggagatc 300
 tgtgctgacc ccaagcagaa gtgggttcag gattccatgg accacctgga caagcaaac 360
 caaactccgg tactcgag 378

<210> 994

<211> 367

<212> DNA

<213> Homo sapiens

<400> 994

gaattcggcc aaagaggcct attgaattct agacctgcct cgagccctcc cgtattaata 60
 ttccactttt tggaaactact ggccttttct ttttaaagga attcaagcag gatacgtttt 120
 tctgttgggc attgactaga ttgtttgcaa aagtttcgca tcaaaaacaa caacaacaaa 180
 aaaccaaaca actctccttg atctatactt tgagaattgt tgatttcttt tttttattct 240
 gacttttaaa aacaactttt tttttccact tttttaaaaa atgcactact gtgtgctgag 300
 cgcttttctg atctctgcatc tggtcacggt cgcgctcagc ctgtctacct gcagcacaca 360
 tctcgag 367

<210> 995

<211> 133

<212> DNA

<213> Homo sapiens

<400> 995

gaattcggcc aaagaggcct aggtggtggt tgtggctgtg gttgtagaaa taataatggt 60
 ggtggtggtg cggctgctgc tgctgctgct gaggggtgatg gtgcggatgg tggtggctgt 120
 gccggtgctc gag 133

<210> 996

<211> 414

<212> DNA

<213> Homo sapiens

<400> 996

gaattcggcc aaagaggcct agtctctttt tttcccatc tcattgctcc aagaattttt 60
 ttcttcttac tcgccaagat cagggttccc tctgcccgtc ccgtattaat atttccactt 120
 ttggaactac tggccctttc tttttaaggg aattcaagca ggatacgttt ttctgttggg 180
 cattgactag attgtttgca aaagtctcgc atcaaaaaca acaacaacaa aaaaccaaac 240
 aactctcctt gatctatact ttgagaattg ttgatttctt ttttttattc tgacttttaa 300
 aaacaacttt tttttccact tttttaaaaa atgcactact gtgtgctgag cgcttttctg 360
 atcctgcac tggtcacggt cgcgctcagc ctgtctacct gcagcacact cgag 414

<210> 997

<211> 394
 <212> DNA
 <213> Homo sapiens

<400> 997
 gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
 tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
 tatgatctta ctgatgtaca cactttggat aactggatg ctcatgtcaa aagggtgtcaa 180
 ctcatcttca tctccatcct ctctctcacc atcaccttct tcttctctct cctcttctct 240
 cccaccttct tctcttctt cgtctacctc attgtcagcc tctgtctccc cattttctct 300
 attagcattc ccggttagcag gggcgtctct tccattttct gcctcttcca caacttctct 360
 cttctctttt aagtccttgg tggtaggtct cgag 394

<210> 998
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 998
 gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
 tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
 tatgatctta ctgatgtaca cactttggat aactggatg ctcatgtcaa aagggtgtcaa 180
 ctcatcttca tctccatcct ctctctcacc atcaccttct tcttctctct cctcttctct 240
 cccaccttct tctcttctt cgtctacctc attgtcagcc tctgtctccc cattttctct 300
 attagcattc ccggttagcag gggcgtctct tccattttct gcctcttcca caacttctct 360
 cttctctttt aagtccttgg tggtaggtct cgag 394

<210> 999
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 999
 gaattcggcg ccgcgtcgac ccattggatct gttcagtcct gcgtttgtgc ttatgtctcc 60
 agcagtcgag ggggcagccc agggcgccct ctcacggctc ctccccgcc ctctcgag 118

<210> 1000
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 1000
 gaattcggcc aaagaggcct agttttatct gttagctcct ttaatcccca caaaagccat 60
 cagaagtagt tgctattatt aatcctgttt tacagatgag gatcctcgag 110

<210> 1001
 <211> 494
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (143)

<220>
 <221> unsure
 <222> (287)

<400> 1001
 gaattcggcc aaagaggcct aaccaggaaa tggagcggct ccgggagctg cagtgggcgt 60

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ccatcctaga catgcgcaga gaccacgagg agcagctgca gcggctaaag ctgctgaagg 120
accgagaggt c gatgcggcc acnagtgcc cctcccacac gcggctccctg aatagcatca 180
tccaccagat ggagaagttc tccagcagcc tgcacgagtt gtccctccgc gtggaggcct 240
cgcacctcac cacctcccag gagcgggagc tggggatccg gcagcgnagc gagcagctgc 300
gggcactgca ggagcggctg gggcagcagc agcgggacat ggaggaggag cggagccggc 360
aacaggaggt catcgggaag atggaggcac ggctgaatga gcagagccgg ctgctggagc 420
aggaacgctg gcgggtgact gccgagcagt ccaaggcgga gtccatgcag cgcgcctag 480
tggagcgtct cgag 494

```

<210> 1002

<211> 370

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (8)

<400> 1002

```

gatcaacnag atgaagggtt atactctgct gtcggagggc attgatgaga tgggtggcat 60
catctacaag cccaaaacta aagagactcg ggagacctat gaggtgctac tcagcttcat 120
ccaggctgct cttggggacc agccacgtga tatcctttgt ggggcagctg atgaagttct 180
agctgttcta aagaatgaaa agctgcggga caaggaaagg cgaaaggaga ttgacctgct 240
gctgggtcaa acagatgata ccagatacca tgtgctagtg aacctgggca aaaagatcac 300
agactatggt ggagataaag aaatccaaa tatggatgac aacattgatg agacatacgg 360
tggctctcgag 370

```

<210> 1003

<211> 568

<212> DNA

<213> Homo sapiens

<400> 1003

```

gaattcggcc aaagaggcct aggtttcggg tggaggactc gttggggagg tggcctgcgc 60
ttgtagagac tgcattcccg agacgatggc ggaggagatg aatcgcagca ccaacctgct 120
ggctgcagag actgcaagtc tgggaagaaca gctgcaagga tggggagaag tgatgctgat 180
ggctgataaa gtcctccgat gggaaagagc ctgggttcca cctgccatca tgggtgtggg 240
ttctttgggtg tttctgatta tctactatct agatccatct gttctgtccg gcgtttcctg 300
ttttgttatg tttttgtgct tggctgacta ccttgttccc attctagcgc ctagaatttt 360
tggctccaat aaatggacca ctgaacaaca gcaaagattc catgaaattt gcagcaatct 420
agtaaaaact cgacgcagag ctgtgggttg gtggaaacgc ctcttcacac taaagggaaga 480
aaaacctaaag atgtacttca tgaccatgat cgtttccctt gctgcggttg cttgggtggg 540
acaacaagtc cacaaccaac ttctcgag 568

```

<210> 1004

<211> 551

<212> DNA

<213> Homo sapiens

<400> 1004

```

gaattcggcc aaagaggcct aaactattca gattacttaa cccaatgac aaaatccaca 60
aaaattttga aggcagagaa acagaaggaa tccagtgatg ttttagctcc attagtctaa 120
taggtcagat attaaaaaat tgttcataac aaaattacct tatatggatt attgccatgt 180
tttttgagag ttaattattt actgttttct aattcttgcc agtatttatg aacagctgta 240
gcttgatatt tacctactga attttaggag aactaatggt cacagtgttg gttcttttat 300
gtgtatgttt ttaaaacagc tattttgtga atctaggtgg ttgggtttta gaagatttca 360
ggagatgcag tccagacaaa ttagagctgg aacattgtta cagcaggctt tttgttgctc 420
atgggcagat agagggaaa aatcagttgt tagcccaaaa tttccacatt tcagtgttgt 480
aaactctgaa tgtgataggt agatgtgggc taagaataat ttccctccagt gaagacacgg 540
gagaactcga g 551

```

<210> 1005
<211> 662
<212> DNA
<213> Homo sapiens

<400> 1005
gaattcgcgg ccgcgtcgac gtggataaat cagtgcctgc ttctttacca gcaatgacaa 60
aagagatgac agagaatcag aggcctctgcc ctcatgaaca agaggatgct gactgcagtt 120
cagaatccgt gaaatttgac gcacgttcaa tgacagcatc ccttcctcac agcactaaaa 180
atggcccctc ccttcaggag aagttgaagt ccttcaaggc tgccctcatt gctctctacc 240
tccttggtgt tgagttacta atacctgttg ttggaatagt aacagtcag gaacatggga 300
attcactgga tgcaatctcc aagtccttgc agagtctgaa tatgacactg cttgatgttc 360
aactccatac agaaacactg aatgtcagag tccgtgaatc tacagcaaag caacaggagg 420
acatcagtaa attggaggaa cgtgtgtaca aagatcagc agaagtcag tctgtgaaag 480
aagaacaagc gcacgtggaa caggaagtaa aacaggaagt gagagtattg aacaacatca 540
ccaacgacct cagactgaag gactgggaac actcacagac actgaaaaac atcaccttca 600
ttcaagggcc tcctggaccc caaggtgaaa agggagacag agggcttact ggactactcg 660
ag 662

<210> 1006
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1006
gaattcgcgc aaagaggcct aagtttgtgt cagaatcatg ttactttttg gtatcttctc 60
taccttaatg gttctgaatt acagcctggc ttccagggaa gtaaagaaag tgattgttta 120
tgggggaaaa ggagcactgg gcacagagag tgtgcgcata ctcgag 166

<210> 1007
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1007
gaattcgcgg ccgcgtcgac gaggagggca aggagaggag gcaggagcag gccaacctgc 60
agctgcactt gcagcctagg ggcaatagag cagagtggtc agaggctggg ctggggaccaa 120
ccacagggtc cagtccacac cctgtcatca ttcgctgggc gagctcaggc ctgtcactga 180
atcgctttgt gcctcagttt cctccctaaa atgagaataa tagcatcgta ctcgag 236

<210> 1008
<211> 147
<212> DNA
<213> Homo sapiens

<400> 1008
gaattcgcgg ccgcgtcgac ttcaaggcag ttatcttgat ttgggggga tttaatatat 60
taaagctata taatactcag atttgggcac tgtaatgact atatctgtgc tgtaattac 120
atgtatttaa aacgtcacat actcgag 147

<210> 1009
<211> 699
<212> DNA
<213> Homo sapiens

<400> 1009
gaattcgcgg ccgcgtcgac cgattgaatt ctaggcctgc ctacgcctcc caaagtgtcg 60
ggattacagg cgtgagtcac cgtgccaggc ccttatgtag tggcatttct aacacaaaag 120
atttattttt acctaaaatg acaatactta ctgggttgcc aaggagaata gtttaagttgt 180
agctaaagat gaaaagccca gagtaggcaa gtaagaaaac cgaattggta aaacttcttt 240

```
ctccacagga cttctgtag tgattgttc atgaactttg aaaggagcaa tggcagttcc 300
tccccgatct ccgttctact caccacatcc caataccgta aagtttatga gcagaggaat 360
ttaacataat gcattttaag ttcataaact aacaaaataa cttcagatct tttaaaaatg 420
cttttttagaa gtttggcctg cttttctacc tttttcacca tattctgtct cctcagctac 480
ctcctaactc cctgaactta aaactctctg gggtcgcttt ccattaatag cttttgactt 540
tgtttcttat gctttggaaa tgtatgccat agcgacattg ctattttaag aggcctttat 600
atattcacgt tttctccctc tttctctctt gtcttccctt gcccttccct ctattccctt 660
tcttattctt gccacccac aacacccccc acactcgag 699
```

<210> 1010

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1010

```
gaattcgcgg ccgcgtcgac gagaccgtgg tagagaagac agtggtacac cagaaataac 60
ccaaaggatt gccccttctg tagaaggccc ttagactcca tgatgccttt cagctgggtg 120
ctatacttgc acctaaactc gggggcttca ctttctatcc ctacaattac tcaaacagat 180
aaaaggctac tcgag 195
```

<210> 1011

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1011

```
gaattcgcgg ccgcgtcgac ttcgtccctt tgcttccctc ctgtgatcca gctacagttg 60
tgctcatggg gcctttctgt gaagtagtgc ttgtggttga tattatggtt ttgaacagct 120
cagctgaaga agttattgtc acagctgtga tacgcactcg ag 162
```

<210> 1012

<211> 478

<212> DNA

<213> Homo sapiens

<400> 1012

```
gaattcggcc aaagaggcct aatttttcac cgcttattct ttttgtcttt ttaacaaaca 60
tattatccga attttttttt ctgcaagcca ctgatagtct ctgctaacta gcttaattga 120
ccttttttaca agttttgatc cccaagcatc ctcaactaaa tcattgaata cttcaatcag 180
gatattatct gctttacttt acaataaaaa ccaatcttt tgccaacagg atgaaacca 240
tcctaaagga aagaaaagga attggtgtga agagagaagt tagagaaggg aaatgcagtg 300
aattactatc tgtgtccatc aggaagtgtt tcctgttaac caaatggtta ctgcactacc 360
agggttactg gtttattttc cagggagctg ataaagcagg agaactgttg ctgcatgttt 420
tctatttgga ctccgtcaca atatggtagg atatccctca ccaactcccg aactcgag 478
```

<210> 1013

<211> 528

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (172)

<220>

<221> unsure

<222> (177)

<400> 1013

```
gaattcggcc aaagaggcct acaagagata gcccagccc agatttccaa atcattaatg 60
gtagataact acaccaaaga tggagtccca ggtcaagaaa gacccaaggg tccctctgct 120
```

```

gttgtgcct ctacaagcac aggaggagtt gctctaccta ttacaacagc cntaganaca 180
gttaacattc atggagatca ctctcttaag aataaagctg agcttgctga tcccatgaaa 240
aatgaagcag ggtcgcgatga agggcatgtg ataggagaat ctgagtcagt gcacagtggg 300
gcgtctaagc attcagtaga gaaagtcaca gagctagcaa aaggtcacct ccttcctgga 360
gtgccagtag aagaccagag cctaccagga gaggccagag ccctagaagg atatgcagat 420
agaggtaatt tcccagcaca tccagtgaat gaagagaaag agactaaaga agggctctgtt 480
gcagttcaga ttcttgactt actggaagac aaagcacaac agctcgag 528

```

<210> 1014

<211> 478

<212> DNA

<213> Homo sapiens

<400> 1014

```

gaattcgccc aaagaggcct aggaactaca cagaatggag gtggagtccc taaacaaaat 60
gcttgaggag ctaagacttg aacggaagaa actaattgag gattatgaag gcaagttgaa 120
taaagctcag tccttttatg aacgtgagct tgatactttg aaaagggtcac agctttttac 180
agcagaaaagc ctacaggcca gcaaagaaaa ggaagctgat cttagaaaag aatttcaggg 240
acaagaagca attttacgaa aaactatagg aaaattaaag acagagttac agatggtaca 300
ggatgaagct ggaagtcttc ttgacaaatg ccaaaagctt cagacggcac ttgccatagc 360
agagaacaat gttcaggttc ttcaaaaaca gcttgatgat gccaaaggag gagaaatggc 420
cctattaagc aagcacaaag aagtggaaag tgagctagca gctgccagag agctcgag 478

```

<210> 1015

<211> 515

<212> DNA

<213> Homo sapiens

<400> 1015

```

gaattcggcc aaagaggcct attataaatg acccgggtcaa gttggtttca aagtcgcaca 60
ggcttgcttg ttactagct gcgtggcctt ggacgggtgg ctgacatctg taaagaatcc 120
tcctgtgatg aaactgagga atcgggtggc cgggcaagct ggaagagca aagccagagc 180
tgcgctgcct caatacccau aaaagaccat tccaggtata cataagcaca ggatgttttt 240
ctcaagaggg atgtatttat cacttggaaca tctgtttata atataaacag acatgtgact 300
gggaacatct tgctgccaaa agaatecctag gcagtggctc attgtatgtg aggttgaacc 360
acgtgaaatt gccaatatta ggctggcctt tatctacaaa gaaggagttt catgggggtc 420
agcctaacag ttatggaaac tacagtcctt ataaaccatt ggcatggtaa taaacagatc 480
tcaagtataa aaattttgta attgggccgc tcgag 515

```

<210> 1016

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1016

```

gaattcggcc aaagaggcct agggacggag agacagagaa ataaaaaatt aaacgtggca 60
aaaatcaaca aagttccaat gcagcaagca tatggcaaag cagaggaatt cacagagaaa 120
cagagagaga aactggatag gctggggaga ctcgag 156

```

<210> 1017

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1017

```

gaattcggcc aaagaggcct agggaaattt ttcttctccc acattatatt tattcagtga 60
tttatttatg tcagtataga ctcatggata tttattttat accttggtta ataaccaac 120
accactttat tttgtgtctc aaattgttcc aactttgccc acaagaactc gag 173

```

<210> 1018

<211> 500
<212> DNA
<213> Homo sapiens

<400> 1018
gaattcggcc aaagaggcct aaagagtata tacctgctga cactgtactt ctctcatcaa 60
gtgagcccca agccatgtgc tacattgaaa catccaactt agatggtgaa acaaacttga 120
aaattagaca gggcttacca gcaacatcag atatcaaaga cgttgacagt ttgatgagga 180
tttctggcag aattgagtgt gaaagtccaa acagacatct ctacgatttt gttggaaaaca 240
taaggcttga tggacatggc accgttccac tgggagcaga tcagattctt cttcgaggag 300
ctcagttgag aaatacacag tgggttcatg gaatagtgtg ctacactgga catgacacca 360
agctgatgca gaattcaaca agtccaccac ttaagctctc aaatgtggaa cggattacaa 420
atgtacaaat ttgtatttta ttttgtatct taattgccat gtctcttgtc tgttctgtgg 480
gctcagccat ggaactcgag 500

<210> 1019
<211> 475
<212> DNA
<213> Homo sapiens

<400> 1019
gaattcggcc aaagaggcct aaaaaataat ggaaataaag ctcatataag gtcctaaagg 60
tcttgggttt agcattgctg gaggtgttgg aaatcagcat attcctgggg ataatagcat 120
ctatgtaacc aaaataattg aaggagggtgc agcacataag gatggcaaac ttcagattgg 180
agataaactt ttagcagtga ataacgtatg tttagaagaa gttactcatg aagaagcagt 240
aactgcctta aagaacacat ctgattttgt ttatttgaaa gtggcaaaac ccacaagtat 300
gtatatgaat gatggctatg caccacctga tatcaccac tcttcttctc agcctgttga 360
taacctgtt agcccatctt ccttcttggg ccagacacca gcattctccag ccagatactc 420
cccagtttct aaagcagtac ttggagatga tgaaattaca agggaaggac tcgag 475

<210> 1020
<211> 246
<212> DNA
<213> Homo sapiens

<400> 1020
gaattcggcc aaagaggcct agccattcac gtatctttgc agaaatatcc attcaaattct 60
cttgcctcatt tttcagctgg gttacttccc tttctattgt tgaaacttag gaattctttg 120
gacactagac tcacatagata tatgatttgc aaatattttc tcttattctg tgggtgtgtc 180
ttttactttc ttgataatgt tccggtcagg ccgaattttt tcccgatccc agagaagggtg 240
tcaaag 246

<210> 1021
<211> 147
<212> DNA
<213> Homo sapiens

<400> 1021
gaattcggcg ccgcgtcgac aatgttgctg aagttgagtc atcaaagaat gcttcagagg 60
acaatcattc tgagaatact ttgtattcaa atgataatgg aagtaattta cagcgtgaag 120
caactgtcat cagtgcgtt cctcgag 147

<210> 1022
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1022
gaattcggcg ccgcgtcgac gcactatata atcaaaaatt actcattccta caaagagcaa 60
ggggaagcta aataattccc aagggaaaag acaattaaca aacaccatcc ctgagaattg 120

ttgcaaattg ccagatctta aagcagctgc taaaactatg ccctgcaaag taaaggtgaa 180
cactttttaa acaaatatga tgggtgcacat cctcgag 217

<210> 1023
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1023
gaattcgcgg ccgctgcgac attgaattct agacctgcct cgagtgactc cgtcggagga 60
aaatgactcc ccagtcgctg ctgcagacga cactgttctt gctgagtctg ctcttcctgg 120
tccaaggtgc ccacggcagg gggcacaggg aagactttcg cttctgcagc cagcgggaacc 180
agacacacag gagcagcctc cactacaaac ccacaccaga cctgcacctc ctcgag 236

<210> 1024
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1024
gaattcgcgg ccgctgcgac ttgagacaaa aggtgggttaa gtagcattat tatgtaatgc 60
ttatatacca tagagttttt aatagaagag aaatccattt cctcggaggy tcactattaa 120
caatgtactt ccttaaattt agtttaatga ttgtaatggg tgctactctc gag 173

<210> 1025
<211> 438
<212> DNA
<213> Homo sapiens

<400> 1025
gaattcgcgg ccgctgcgac cacaggaatg aattacacgc cctccatgca tcaagaagca 60
caggaggaga cagttatgaa gctcaaaggt atagatgcaa atgaaccaac agaaggaagt 120
attcttttga aaagcagtga aaaaaagcta caagaaacac caactgaagc aaatcacgta 180
caaagactga gacaaatgct ggcttgccct ccacatggtt tactggacag ggtcataaca 240
aatgttacca tcattgttct tctgtgggct gtagtttggg caattactgg cagtgaatgt 300
cttcctggag gaaacctatt tgggaattata atcctattct attgtgccat cattgggtgt 360
aaacttttgg ggcttattaa gttacctaca ttgcctccac tgccttctct tcttggcatg 420
ctgcttgacg ggctcgag 438

<210> 1026
<211> 736
<212> DNA
<213> Homo sapiens

<400> 1026
gaattcgcgg aaagaggcct aattgaattc tagacctgcc tcgagtatgg aaatagagtt 60
gagggaatg agaacagaag ccattgccag acctctggaa ataaacgaga ctgaaaaagt 120
gatgagaatt gcaataaaag agattttgac acagggttcag aagactaaag acctgtctca 180
taatgtggcc tctgatgaag ctaatttaga agccaaaatc gaaaagagaa aattagaact 240
ggaaagaaat cggaagcgac tagagactct gcagagtgtc aggccatgtt ttatggatga 300
gtatgagaag actgaggaag aattacaaaa gcagtatgac acttatctgg agaaatttca 360
aatctgact tatctggaac aacagcttga agaccatcat aggatggagc aagaaagggt 420
tgaggaagct aaaaacactc tctgcctgat acagaacaag ctcaaggagg aagagaagcg 480
cctgctcaag agtggaagta acgatgactc ggacatagac atccaggagg acgatgaatc 540
cgacagtgag ttggaagaaa ggccgctgcc caagccacag acagccatgg agatgctcat 600
gcaaggaaga cctggcaaac gcattgtggg cacgatgcaa ggtggagact ccgatgacaa 660
tgaggactcg gaggagagtg aaattgacat ggaagatgat gatgacgagg atgacgattt 720
ggaagacgag ctcgag 736

<210> 1027

<211> 508
 <212> DNA
 <213> Homo sapiens

<400> 1027
 gaattcggcc aaagaggcct acgtagatca gtctcctttt gtgcctgaag agacgatgga 60
 ggaacagaag acaaaagtgg gtgatgggtga cctctctgct gaggagatac ctgaaaatga 120
 ggtatccttg agaagagctg tcagtaaaaa gaagacagca ctgggcaaaa accattccag 180
 aaaagatgga ctcagtgatg aaagaggaag agatgactgt ggaacctttg aggacacagg 240
 gccctctctc cagtttgact ataaggctgt tgctgatcga ctcttgaaa tgaccagcag 300
 gaagaacacg cccacttca acaggaagcg cctctccaaa ctcatcaaga aattccaaga 360
 cctttctgaa ggaagcagta tatctcaact cagttttgcg gaggacattt ctgctgatga 420
 agatgaccaa atctcagtc aaggaaagca taagaagaaa ggaataaac ttttagagaa 480
 aactaacttg gaaaaggaaa aactcgag 508

<210> 1028
 <211> 632
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (166)

<400> 1028
 gaattcggcc aaagaggcct acaaaaggca gttaattga tttcagtga gacagactca 60
 agaagaaat gcaaaatcct acttccttga aaatttctga agaggaaaca aaactcaggt 120
 ctgttagtcc aactgagaag aaagataatt tggaaaacag atcatntacc ttggcagaaa 180
 agaaggtgct ggcagaaaaa caaaactctg tggccctatt agagcttaga gatagtaatg 240
 aaatagggaa gacacaaatt acacttggat ctagatctac tgaactgaaa gaatcaaaag 300
 ccgatgctat gccacagcac ttctatcaaa atgaagacta caatgaaaga cccaaaatca 360
 ttgttggttc tgaaggag aaagggtgaag aaaaagaaaa tcagggtatat gtgctttcag 420
 aaggaaagaa gcagcaggaa catcagcctt attctgtgaa tgtagccgag tctatgagta 480
 gagaatcaga tatctcttta ggtcattctt tgggtgaaac tcaatcattt tcattagtta 540
 aagctacatc agttactgaa aaatcagaag ccattgctgc agaggctcac ccagaaatca 600
 gagaagcaaa ggcagtagga acccaactcg ag 632

<210> 1029
 <211> 131
 <212> DNA
 <213> Homo sapiens

<400> 1029
 gaattcgcgg ccgcgtcgac gttttatatt gtgttttcca ctagtatatc cctgttgatt 60
 tgtttgtgcc ttttattaac tgccatttcc taaaattttt ttcaataaaa ggaaggaaga 120
 tgacgctcga g 131

<210> 1030
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 1030
 gaattcggcc aaagaggcct aagcagacat ctgagaaagc ttcagcattt ctcttgctaa 60
 cagattcaga aaagtgtctc aaagcagagc acagagttat ttggtgtttg ctgaagacag 120
 cctttgtgcc acaatcactt attaaataag cgatcaattt cccattgaac tgaacatgca 180
 acatttatca tacattcagt tctcattcac actccttaag atttggtcag aatttttatt 240
 tctgttcacg tcttctactt ttctactcct gtatgaataa aatattgatt tgattacagt 300
 ggcttttgact ataagtggg agccaatttt tgctcagtc ttcattttta tattacctt 360
 gttatttcca ggcatttttt tcttctatgt gagagttaaa atcattctgt aatttcccc 420


```

caaaatcata ttggtattct agttggcaat gtcttacatt catgttaagt ttgaggggaac 480
tggtagttca agtataagtt aattaaggcc attttatttc taagtgaaca gacttgaaac 540
tccagagcta ctgaagtaaa agttagaatc atttgcattt tcattcagat aggagataat 600
tttgtaaatt ttgatgctat tattttaact ctattagctt aagtaatgtc ataatagaaa 660
acacaagcat ttgaccaaat gagatccatt cagcgactaa ctggcaaggc accgctcgag 720

```

<210> 1031

<211> 1077

<212> DNA

<213> Homo sapiens

<400> 1031

```

gaattcggcc aaagaggcct atgaggtagc ttatttcgtc aattaattag ggtgctggat 60
ggtagagaat tttgtcagtc aactatgtac acacagtaaa tactgtttct taggcaaagg 120
taactttttt atatagtgtt aaaattccat tatattccat tgccaaagaa acattaagaa 180
ctttgtatag ctgtataaaa agcaactaat tttttaaaga ataaacattt taaagtcagc 240
aaacatactg tgccttgca gaagttgatg tgctgagcag cagccttatg ggtgggtcct 300
tttttcttag tttccaggc ttaacatttt tgattttgtt ttttaatgtt tggacataa 360
atgaagattt gatacatcat ttcatatctt aaaaaggatt aattattcat gtcattgta 420
agaacttcat tttgtagcaa atggcataatc acaggatctg tccagataat cgatatttc 480
agtatacaaa tgtaaaatat cacagatgag aatgtactta gctgtatttt caaataagta 540
atcttcccc cttttgtagg actttaaaac taggcatcaa tgaacctgtt tttcctatta 600
tgcttggaa ttagtcatga taccttgact cattccatca tatttcaaga ggattcagag 660
tgctagaaat tatttttgta gctgtgaaca cagggaaca ctggtccttg ggcctatgat 720
gaccacaga tgactcagta tagagttcat tgctaattat aaattactag tgaatctttt 780
tgatatttta agctctagtg ggaaaaatct ggccactttt gtgtttttat gaaggccatg 840
gaataaaaagg atccaaagat ttaaataatt ttatctaata ttttgattgt tttcttaact 900
ttctccttaa aacattcagt agtgataaag atatagaaac tgcactgtag gagaattgga 960
atatttaagg ctggttgaca ttttttattt tcattttata tcttttgtat agctctacaa 1020
ggcagtgtt tgtaatttgg tttcattatg aagatccagt acttggcagc tctcgag 1077

```

<210> 1032

<211> 802

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (770)

<400> 1032

```

gaattcggcc aaagaggcct agacagagtg aagaaactgt gtccccccct tgggttgcta 60
tcgatcaagg gtaaaattcc attctgatat caaaatgcag tattegcacc actgtgagca 120
ccttttagag agactgaaca aacagcgga agcaggtttt ctctgtgact gtaccatagt 180
gattggggaa ttccagttta aagctcatag gaatgtgctg gcctccttta gtgagaattt 240
tggtgcgac tacagaagca ctctgagaa caatgtcttt ctgtacaga gtcaggtgaa 300
ggctgatgga tttcagaac tgttggagtt tatatacaca ggaacttta atcttgacag 360
ttggaatgtt aaagaaattc atcaggctgc tgactatctc aaagtggag aggtgggtcac 420
taaatgcaaa ataaagatgg aagattttgc ttttattgct aatccttctt ctacagagat 480
atctagtatt actggaacaa ttgaattgaa tcaacagact tgtcttctta ctctgcgaga 540
ttataataat cgagagaaat cagaagtatc tacagatttg attcaggcaa atcctaaaca 600
aggcgcgtta gcgaaaaagt catctcaaac gaaaaagaag aagaaggctt tcaactcccc 660
gaaaacaggg cagaataaaa cagtgcata tcccagtgac atcttagaga atgcatctgt 720
tgaattatc ctagatgcaa ataaactgcc cacacctgta gtagaacaan ttgcacaaat 780
aaatgataat tcagaactcg ag 802

```

<210> 1033

<211> 442

<212> DNA

<213> Homo sapiens

<400> 1033

gaattcggcc aaagaggcct aagcagaggg aaaacaagag gaaatccaac agaagggaca 60
ggctgagaaa aaagaattac aacataaaat agatgaaatg gaagaaaaag aacaggagct 120
ccaggcaaaa atagaagctt tgcaagctga taatgatttc accaatgaaa ggctaacagc 180
tttacaagta cggttagaac atcttcagga gaaaactctt aaagaatgca gcagcttggg 240
gatacaagtt gatgacttct tacctaaaat aaatgggagc acagaaaaag agaagctgat 300
cgtcgaaggg catctaacca aagcggtaga agaaacaaaag ctttcaaaaag aaaatcagac 360
aagagcaaaa gaatctgatt tttcagatac tctgagtcca agcaaggaaa aaagcagtga 420
cgacactaca gacgcactcg ag 442

<210> 1034

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1034

gaattcgcgg ccgcgtcgac aactaaatat aaaaaatata ggatgatggg tacagtgcct 60
gagaggaggt taaaggagat aaaagtaagt atattttttg agaacaaaat agtaacaata 120
gtgctgataa tgctgtcatt atttatattt tgcacactgt gtgtccagct ctgtattata 180
tttattaatg catccaaccc ttactactac cctctcgag 219

<210> 1035

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1035

gaattcggcc aaagaggcct aagaaaaacat gattatgtgt cactttaata caggaaattt 60
aggtgttttt tgggtgttttt gtttttgttt ttgttttctt tccaaagctc acctcgag 118

<210> 1036

<211> 1259

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (285)

<220>

<221> unsure

<222> (603)

<220>

<221> unsure

<222> (619)

<220>

<221> unsure

<222> (645)

<220>

<221> unsure

<222> (675)

<220>

<221> unsure

<222> (707)

<220>

<221> unsure

<222> (737)

<400> 1036

```

gaattcggcg cgcgctcgac cctaaaccgt cgattgaatt ccagaccctc cctcccgtagg 60
ctccaaacta atacggactg aacggatcgc tgcgaggatt atcttacact gaactgatca 120
agtactttga aaatgacttc gaaattttctc ttggtgtcct tcatacttgc tgcactgagt 180
ctttcaacca cctttttctct ccaaccagac cagcaaaagg ttctactagt ttcttttgat 240
ggattccggt gggattactt atataaagtt ccaacgcccc atttncatta tattatgaaa 300
tatggtgttc acgtgaagca agttactaat gtttttatta caaaaacctt ccctaaccat 360
tatactttgg taactggcct ctttgagag aatcatggga ttgttgcaaa tgatatgttt 420
gatcctatct ggaacaaatc tttctccttg gatcacatga atatttatga ttccaagttt 480
tggaagaag cgacaccaat atggatcaca aaccagaggc aggacatact agtgggtgcag 540
ccatgtggcc cggaacagat gtaaaatata taagcgcttt cctactcatt acatgcctta 600
cantgagtca gtttcattng aagatagagt tgccaaatta ttgantgggt tacgtcaaaag 660
agccataaaa tcttngtctt ctctattggg agacctgatg acatggncac catttgggac 720
ctgacagtcc gctcatnggg cctgtcattt cagatattga caagaagtta ggatatctca 780
tacaaatgct gaaaaaggca aagtgtgtga acactctgaa cctaatactc acaagtgtac 840
atggaatgac gcagtgtctt gaggaaggt taatagaact tgaccagtac ctggataaag 900
accactatac cctgattgat caatctccag tagcagccat cttgccaaaa gaaggtaaat 960
ttgatgaagt ctatgaagca ctaactcagc ctcatcctaa tcttactgtt tacaaaaaag 1020
aagacgtttc agaaagggtg cattacaaat acaacagtcg aattcaacca atcatagcag 1080
tggctgatga aggtgtggac attttacaga ataagtcaga tgactttctg ttaggcaacc 1140
acggttacga taatgcgtta gcagatatgc atccaatatt tttagcccat ggtcctgctt 1200
tcagaaagaa tttctcaaaa gaagccatga actccacaga tttgtacca ctactcgag 1259

```

<210> 1037

<211> 588

<212> DNA

<213> Homo sapiens

<400> 1037

```

gaattcggcc aaagaggcct aggagctcct aaaaaataaa aagactaaca atccaacaac 60
aacaaaaaag gataatgcat atgaagagag tgtacacaca cacacacaca cagagctctt 120
aaacatatgg aaagatgttc catttcactc ataaaaaaag aagtataaat taccaggaag 180
agatcccata aagagatagc tttgccctt ctctgggggc aaagatgact aagtttgata 240
ccaatttggt gatgaagggt tggggaaaca aacaagacat ttgctgatg agagtgaana 300
gggacacagc ctcccagaa agcaatttgg taacatcttt gcaaattgta agcacacata 360
tccttcaatc cagcaattct attctgagat tttatgctac agatattttt ttatgtgtct 420
gaaataacct acatgcaagg caattcatgg acgtgtgtgt tgatcatagca aaggattggg 480
ggaaaatgta aatgccagc gattatatga actggtgtgc gccatataaa ggaaagacag 540
cagaagtaca aagaacacag cagcatatct atcaggaatg agctcgag 588

```

<210> 1038

<211> 951

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (160)

<220>

<221> unsure

<222> (286)

<220>

<221> unsure

<222> (438)

<220>

<221> unsure

<222> (835)

<400> 1038

```

gaattcgcgg cgcgcgcgac gcgggagttt ttaatacaca ctaaagtgtc agtttaggaat 60
taacaggtaa agaaatcaag acattaaaga ttctggatat tagtcctttg tcagatgagt 120
aggttgcgaa aatcttctcc cattttgtag gttgcctgtn cactctgatg gtagtttctt 180
ttgtctgtgca gaagctcttt agtttaatta gattccattt gtcaatttgg gcttttggtg 240
ccattgcttt tgggtgttta gacatgaagt ccttgcccat gcatangtcc tgaatggtaa 300
tgcctagggtt ttcttctagg gtttttatgg ttttaggtct aacgtttaag tcttcaatcc 360
atcttgaatt aatcttttga taagggtgaa ggaagggtac cagtttcagc tttctacata 420
tggctagcca gttttccntc gagattgcag tgagccgaga ttgtgccact gcaactctagc 480
ctaggtgaca gagtgagact ccatctcaaa agaaaataaa ataaaaataa aatcaaggag 540
aggcagaaaag gggatctgca ggagaggaaa aaaggcagca ctcccaaaaag catggatata 600
attatatttg tgaatttttg taaactgtgt gtatacgtgc acttacaat aactttaaaa 660
atgtaaataa tgaatataaa cagagagagg cattatagat ctgacccaa atagccagag 720
tagcttctgg tcatccacac tggccactgg tttcttgtaa aggggttcag cagactttag 780
atgtaattga accatttggg gtagaaagaa atatgaatac tagtctgcaa agacngatat 840
gaattctctt ggagaacttg agcctctctt tggctgggtt ccaaaaacaac cagtttcttt 900
ccatgtgtga gggaggaaat tctcatgggc tgtgccagga ggaagctcga g 951

```

<210> 1039

<211> 221

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (163)

<400> 1039

```

gaattcggcc aaagaggcct agggaaatat agtaattcct aggcatttta actagtgaat 60
ggataccatg aaccataatt ggtaaattat ccaaaaatca atcatattta gctaaggaaa 120
gtggtgcaca tgtgtgtgca tgtgtgtgtg tatctgtgtg ttntataatg ggaaattcac 180
tttaaaactaa tgaaagaatg atttgaaact ctgaactcga g 221

```

<210> 1040

<211> 373

<212> DNA

<213> Homo sapiens

<400> 1040

```

gaattcggcc aaagaggcct agacatatat gaggccttct ccagacttca gtaaaattgc 60
ttggttcctt gtcacaagcg caaatctgtc caaggctgcc tggggagcat tggagaagaa 120
tggcaccag ctgatgatcc gctcctacga gctcgggggc cttttctctc cttcagcatt 180
tgggtctagac agtttcaaag tgaaacagaa gttcttcgct ggcagccagg agccaatggc 240
cacctttcct gtgccatatg atttgctctc agaactgtat ggaagtaaag atcggccatg 300
gatatggaac attccttatg tcaaagcacc ggatacgcat ggaacatgt ggggtgcctc 360
cgtgaatctc gag 373

```

<210> 1041

<211> 755

<212> DNA

<213> Homo sapiens

<400> 1041

```

gaattcggcc aaagagccta gtccagcagc cgagcgttgc ccaactgaga tcaacaatgg 60
tagaccagc gatcaacttg ttttctctaa aaatgaaagg tgaactggaa cagactaaag 120
acaaactgga acaagcccaa aatgaactga gtgcctggaa gtttacgcct gatagccaaa 180

```

```

caggggaaaaa gttaatggcg aagtgtcgaa tgcttatcca ggagaatcaa gagcttggaa 240
ggcagctgtc ccagggacgt attgcacaac ttgaagcaga gttggcttta cagaagaaat 300
acagtgagga gcttaaaagc agtcaggatg aactgaatga cttcatcatc cagcttgatg 360
aagaagttaga gggatatgca agtaccattc tagttctgca gcagcagctg aaggagacac 420
gccagcagtt ggctcagtag cagcagcagc agtctcaggc ctctgcccc agtaccagca 480
ggactacagc ttctgaacct gtagaacagt cagaggccac aagtaaagac tgcagtcgtc 540
tgacaaacgg accaagtaat ggtagctcct cccgccagag gacgtctggg tctggatttc 600
acagggaggg caacacaacc gaagatgact ttctttcttc tccaggggaat ggtaataagt 660
cctccaacag ctccagaggag agaactggca gaggaggtag tggttacgta aatcaactca 720
gtgcggggta tgaaagtgtg gactctcatc tcgag 755

```

<210> 1042

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1042

```

gaattcggcc aaagaggcct aaaaaaagag aaagaagact tgaagtttgt gtttgggtgt 60
tttccaggtt atccaaatat gaaagtcagt tctaccaggt ctcaaaacta cggaaactaat 120
gttcatgtc agaaagtcct acaaatgagt acttatgtta tgctagtttt tcttctcttt 180
tcctattttt taaagaacaa agacattcgg ctactcgag 219

```

<210> 1043

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1043

```

gaattcggcc aaagaggcct aggcgggaga aattcttaga aacattcaga aaaactcgat 60
tttaatccgg ttaaaaatca tcagtgtcat tatcatcatc atcatcacca tcataagtat 120
taataataata ataataagta atagtaacta gtaacaacaa taaaaggaa atcagcggaa 180
agtcaggaaa atgtttaaaa aaaaattgga ataacttact cgag 224

```

<210> 1044

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1044

```

gaattcggcc aaagaggcct atgcgggttt ttgttttttt gaaacaggct ctcactctgt 60
catctaagct ggggcacagt ggcatgacca tgcctcactc caacctcgag 110

```

<210> 1045

<211> 216

<212> DNA

<213> Homo sapiens

<400> 1045

```

gaattcggcc aaagaggcct aggggtttttc tatttccgta aaaaacaaca gggattgcat 60
tgaatctgta gatcactttg gataaatattg acctcttaat gatattaagt attctaatac 120
attaacatgg gacatatttc cattttattta tgtcttttaa attttctttt ggcaatgttt 180
tgtatttttc attgcacaag tctttcacct ctcgag 216

```

<210> 1046

<211> 417

<212> DNA

<213> Homo sapiens

<400> 1046

```

gaattcggcc aaagaggcct agagtgaata acctgggttt gaaacagcaa aatctacctg 60

```

```

ttactcgtat tttggacaat cttatggaga tgaagtcaaa ccccgaact gatgactata 120
gatattttga tccccaaatg ctgcygggca atgacagctc agttcccaga aataaaaatc 180
cattccaaga ggccattgtt tttgtggtgg gaggaggcaa ctacattgaa tatcagaatc 240
ttgttgacta cataaagggg aaacaaggca aacacatttt atattgctgc agtgagcttt 300
ttaatgctac acagttcata aaacagttgt cacaacttgg acaaaaagtaa cacagaagaa 360
ccttactatg ataacttact tggaatgtgg ataaatgtaa aaagaagaaa actcgag 417

```

<210> 1047

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1047

```

gtccactttc ccgcatcttc cttgacagcc tactcttttt tttttcctgt tacctttttac 60
tatttctttt cgatctttgt gagtttctct tctgccatc ccttaaatgt tgtttcctag 120
aactctgtcc ctaaccattt tctattttca cccccaactc gag 163

```

<210> 1048

<211> 469

<212> DNA

<213> Homo sapiens

<400> 1048

```

gaattcggcc aaagaggcct aggggaatgag agccagccct ctgcacctgt gggtttgcac 60
cctcagattc aagcaaccat ggactgaaaa tgtaggcagg actgtgatgg ttacatctat 120
actgaacgtg cacacaatgt tttcttgtca ttatctcctg aactagacag tggaaacct 180
gtttaaactg catttacatt gcaactggga gtagaagtaa cctagggatg atttagagtc 240
tacaggagga tgtgactggt cacatgcaaa ccatgtgtcg atgtatatga gatttgagca 300
cctgtggatt ttggtatcct gggcggtgga ggctctggag ccaatctcta atggatacca 360
agggaggact gtacttggct ctggaggagg ccgttctaac cactccccac actttctgag 420
aacttgggaa gcttgaggca gaggtggccc ccaagagttg gtgctcgag 469

```

<210> 1049

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1049

```

gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagga taactttctg 60
attctctctt gccagccgtt ttgctctctt tggaaagcca aacgggtgacc atgcttctta 120
atztatgcct tcagggtctg gcttctcctt tctccttcc tttctgtca caccatgcat 180
acatacatat aaatacactc gag 203

```

<210> 1050

<211> 691

<212> DNA

<213> Homo sapiens

<400> 1050

```

gaattcggcc aaagaggcct acacacatta gtccaggcct acacatgac aggatcatca 60
acatcactgt tgatgttgat gatccactg gaaggtcttc aggggcagta acacgcatgg 120
agctgtcact tcctatgatg tcaatgcctt cttctggata cttcctgagg gacctgcctg 180
aggctgtttt acagttaaat tttaaaaaat ttacattgaa ggagcacact ccaaaatcaa 240
gataaaaagt ataatatagt aaatagataa accagtaaca tagtcattta ttatcattgc 300
taaataatat gtatataatt gcatgtgtta tactcttata caactggcag tgcagtaggt 360
ttgtttgcac cagcagcacc acaaacatga gtaatgcctc gtgctgctgt ttcacgaagg 420
cgatgatgtc acgggtgacag gaagtttttag ctccattata attttatggg aacaccattg 480
tatatagtgt ggtgttcctt gttgacaaa acatcattat gtggtgcatg actgtatcta 540
tatttaatat ataatatgta aaatattata agtatcttta cagtagaatc caacctcttt 600
ggcgaggcat cccaggcatt tcacagtgg atccctgcct acctgttgag ccttgtcttc 660

```

caccatgttc ctcacccaca ccatactcga g

691

<210> 1051

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1051

gaattcggcc aaagaggcct gcgcttactg aggacctact ctgctagctg ctggggactc 60
tgtgattgaa gatctgctcc ctgtccctagc gttgtaatag tatattagta ggctaaaaga 120
taacagccat ttcccgtata gcatttgcct atatgtataa tctcttcagc tacatcctcg 180
ag 182

<210> 1052

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1052

gaattcggcc aaagaggcct aaaaatacat gcaacataaa atttgtcatt ttaactacta 60
aatgtacaat tcagtgggtat ttattacatt tacacattgt gcaaccatca ctactatttt 120
caaaaactttt ttatcacccc aatcagcctc tttgtaccct ttaagtaata actccggctc 180
cgag 184

<210> 1053

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1053

gaattcggcc aaagaggcct tcgagacagt ggatgggctg gagaaggaac gtgacttcta 60
cttcagcaaa cttcgtgaca tcgagctcat ctgccaggag catgaaagtg aaaacagccc 120
tattactcga g 131

<210> 1054

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1054

gaattcggcc aaagaggcct agtgggaggc ttatatcttg tggagtaatg ggtgtttttg 60
aagctctgctc tgggtactgc acattaaaag gaatattcatt ttctgaaaca ttgctatttt 120
ccacaccaga aatcatatcc tcttgctggc ccatgtctga agaccttaca cgagaaagtc 180
ttaatgtaag tttagtagag tccttgatg gagaactaat tatatcatac attgccgctt 240
tctcactctg ctctttttca tccttgccca atttcatttt cttctgcttc ttttgttttc 300
tttctggaga atctagcaag atatctgggt gaactctcga g 341

<210> 1055

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1055

gaattcggcc aaagaggcct agagctttcc tacttttcag gtttaaattt atcttttttc 60
ctctaaaagt atgtttttat cttctaattt ccctatcttc tctattcttt tcttcgcttc 120
cccgtctcga 130

<210> 1056

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1056

```
gaattcggcc aaagaggtct aggtagaata gaaacttcag catctaccaa gtcaagaaga 60
taacttgga aacaattctg actgacattc caatttaatc acacttaatg aattctgcac 120
tgtcactcga g                                     131
```

<210> 1057

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1057

```
gaattcgcca aagaggccta taggcctctt tgcccggaatt cggccaaaga ggcctaggta 60
agatctgagc ctgccaaaggc cccaggggat atggggaacc cagcagagat gagtgcacaa 120
gaagaggggtg ggggcagggg ccagacagac ctggatttca acctcgagg agctgctcga 180
ccctgggcaa tttgcttgcc ccttctggc ttcaatttcc tatgtataaa atgaggagaa 240
taatgtcaaa taccatatt ctgagaaaaa ccaaatactt ggattgaatt ctgacacctg 300
ctcgag                                     306
```

<210> 1058

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1058

```
gaattcggcc aaagaggcct gcccttctct cacaatcata gagttttcta gcggtcacag 60
ggcatatcac aacagatgat gcataaagta gctatgacaa tccagctact ttctgttaag 120
ctagatatca tagttgcaaa g                                     141
```

<210> 1059

<211> 626

<212> DNA

<213> Homo sapiens

<400> 1059

```
gaattcggcc aaagaggcct agtagcgatg gcggctgggc cgagtgggtg tctggtgccg 60
gcgtttgggc tacggttgtt gttggcgact gtgcttcaag cgggtgtctgc ttttggggca 120
gagttttcat cggagycatg cagagagtta ggcttttcta gcaacttget ttgcagctct 180
tgtgatcttc tcggacagtt caacctgctt cagctggatc ctgattgcag aggatgctgt 240
caggaggaag cacaatttga aaccaaaaag ctgtatgcag gagctattct tgaagtgtgt 300
ggatgaaaat tgggaagggt cctcaagtc caagcttttg ttaggagtga taaacccaaa 360
ctgttcagag gactgcaaat caagtatgtc cgtgggtcag accctgtatt aaagcttttg 420
gacgacaatg ggaacattgc tgaagaactg agcattctca aatggaacac agacagtgtg 480
gaagaattcc tgagtgaaaa gttggaacgc atataaatct tgettaaat ttgtcctatc 540
cttttggtac cttatcaaat gaaatattac agcacctaga aaataattta gttttgcttg 600
cttcattga tcagtcacca ctcgag                                     626
```

<210> 1060

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1060

```
gaattcggcc aaagaggcct agctgttttt tttgtgttg ttgtgtgtt ttttaattga 60
taacttcagg aacttgtatc tgtgcytaga gcagtgatcc agacagctgt acttttatga 120
acagtcactc tgactgccaa attagtgtgt agtgcaaatc ttgagtgaga acagcacctg 180
ttctcaatgt ggatgaaaat ggcaaatgtt atgggaagca ttctcgag                                     228
```

<210> 1061

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1061

```
gaattcggcc aaagaggcct aagaattcta gaccgcctcg agacgccacg cccagccggg 60
aattctcatt ttttatgagt attacaggtg aaatatccag acacctaaca gggcagaaga 120
ctcattttta tcaaagaaat aaaaataaat ttttgTTTTt ttggaaatac tgtgtaaaga 180
ttcattgtaa aattttcctc agcatgttaa cagagaaggt gttcactctc ctctgtgcat 240
tttttttcca gtttgaattg acaaggagcc gactcgag 278
```

<210> 1062

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1062

```
gaattcggcc aaagaggcct aaagatgctg gggagaaaga acatgtcact aagagttctc 60
tggtccattt tctttaccat ttcttttttg aatctggctg cttttccttg ttgtggctgt 120
gacactagta tcactctctg tcccatcatc aacaccatcc aactcgag 168
```

<210> 1063

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1063

```
gaattcggcg ccgcgtcgac cgctcattga attctagacc ttctctctgc cttttccttt 60
cttcttctct ctgtcgccga agaatttctt cctgttgtct tcggagttct tcttgcctct 120
ttcgtctctc ctcttcccg tttgccctca tttctgcctc ttttctctct tgccttagct 180
ttgcagcttt ggcttctctc agctgctgaa gctgttccag ggcagggcct ggtgtcgtgg 240
tgtccagagg aagatcccat acactaccac cttctcgag 279
```

<210> 1064

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1064

```
gaattcggcg ccgcgtcgac gcagtcctaa atatatagct ggatacttct taaccttggg 60
gtatctattc ttaatcatat ttgttgtatc ttggaatcca aaaaggttct ggtagacca 120
atagtgaaga attacgttga attaagtaat agttttcaga agtggataag atgttaatgt 180
taatgggtgct atccaattgc tcattttcat cttggaaagt ttccctattt ttattcagag 240
gaattactct gatatgttta cctatagtc tcccgatcc tgatatactg tctaggacag 300
tatatatgtc tatgttttcc tgttcatcag tacgtagcag tctcgag 347
```

<210> 1065

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1065

```
gaattcggcg ccgcgtcgac ctaaaccgtc aaatttcaga acataaaaat aaatttccat 60
ttacagattt cccctttcca gttccaaaag tagttattct agagtaagta ttcaacacat 120
aaaaatttagc tgaatcaaat aaaaaaat caccaaatgc aaatatcaat tccaaagcac 180
agattttata tatactgctt tcatatttcc cttttgctgc ttttatctag aaaagaagca 240
aaaggactcg ag 252
```

<210> 1066

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1066

```
gaattcgcgg ccgcgtcgac attatcttcc aggttgtgct tttccacaa aatattggtc 60
taaaaagata atgcaggttt tgcagatact ctacgatggc agaaatcaaa cttcaacatt 120
cctttggcac attttgtttt tcttaattt ttattgtgtc ttatctgtgt atttgtata 180
tgggggaagg agagagcact agcaagcatg agcgtctcga g                221
```

<210> 1067

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1067

```
gaattcgcgg ccgcgtcgac aaacaattca ttctaattgt tgcctatgtt atcaagaagt 60
gtactattgt gagtaattt cagaatttag gactgtgtga attctgatcc ttacccttga 120
tgatgtattt tcccttagct atatcactac ctttgtttgc taccagtgtt ataatgaggg 180
ttgttagaat tcacggactc gag                203
```

<210> 1068

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1068

```
gaattcgcgg ccgcgtcgac acagggttaag agagtagatc aactgaagaa aaatataatt 60
aaaagaactg ctacgagttc ctttaatttt atgacttggg agtttttctt gtttgtttt 120
gagacagggg ctttctttgt caccaggtc gcagtgcagt ggcattgatc cagctcactg 180
cagcctcaac gtccttggtc cgag                204
```

<210> 1069

<211> 244

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (26)

<400> 1069

```
gaattcggcc ttcattggcc actgcnattc tctgtttttt tttttttttt ttcttctctc 60
ttttgtgagc agatctcagg ggaggtggag gaaaggacaa agggaaaggc tctgagtaat 120
ttcttcaaaa tctgtattct ttgtactaaa aatgttcatt cctattaatt ccagattgtt 180
tgcaatgtgc ctactttgcc actggcaaat tgtgacatct ctgaagtcgg ccttcattgt 240
cgag                244
```

<210> 1070

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1070

```
gaattcgcgg ccgcgtcgac gtgtcatttt tttcttatca agaagttctt ttttaaaaat 60
catccatttc ttgccccatt atgggtgatgt cttttcttaa atccttgaat ttaaagggca 120
aacaatataa ttataatatt tgtaatagcc ttttaataga tcattgcttg ctaattctct 180
catttgcata attaatgaat ctgtttttac taaccag                217
```

<210> 1071

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1071

```

gaattcgcgg ccgcgtcgac attgaattct agacctgcca cactccagt ttaattcttc 60
accttcaaat gatgtcccca ctcagtctat ttctctcttt ctgcataatt ctcaccacgt 120
cctcgag                                     127

```

<210> 1072

<211> 755

<212> DNA

<213> Homo sapiens

<400> 1072

```

gaattcgcgg ccgcgtcgac gtctcttttc tgctctcttc cccttggtta catataaaaa 60
tacgtttttc agttgggcgt ggtggctcac gcctgtaatc ccagcacttt gggaggccaa 120
ggcgggtcga tcaagaggtc aggagtgtga gaccagcctg atcaacatgg tgaaacccca 180
tctctagaaa aatacaaaaa ttaccaggt gtggtggcgc gtgctgttaa tcccagctac 240
tgaggaaagt gaaggaggag aatcgcttga acccaggagg cggagggtgc agtgagccga 300
gattgcgcca ttacgtctca gcctgggcaa tagagcgaga ctccatccca aaaaaaaaaa 360
aaaagacaag tttttgtgaa tatggcttaa taccacaaac aagaatacca aagaatctat 420
caaaatgtta ccacattgat attatggcaa aggcattaac cagctctagg atttgtaatc 480
aaccagctct aaagttttta ttttacagat aaggtaaaaa cagtggttta gagagacgaa 540
gtaacttcct caaggttaca gttagttaaa atcccagtta ggattcaaag caagcttttt 600
tgctcttaga attcttcccc aggtcactgc ctcttccatc aacttcaact atttataaat 660
tctcccaagt tccccaaagg agttagattt gaatgatgta aagagcagaa acataggact 720
gactgaatga ttctcatttt tttgactctt aaagt                                     755

```

<210> 1073

<211> 580

<212> DNA

<213> Homo sapiens

<400> 1073

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagttgc 60
catctcaaaa aaaaataaaa ataaaaaata actgattcaa tcttgcaac agccctgtga 120
tgcaagtatt cttatcccta ttttacagat tgggaaatga ggcacagaga ggttaaatgc 180
cttaaccagg gtcacagggt acatcattgg taaatggcag aaccaggact tgagaccagg 240
cagtctagct ctctgcccc tactcctaac catcacctta cacagcctcc ccccaggttt 300
tattacattc accagattat ttggtgaagg aaatcccaat tttgttatgg cgttggtaac 360
tgtctatga actatatagt taatcttaat tccaaaagca agaagtctgt tcaagcataa 420
actcatatcc cttgaatcat ttttctagag gaacatggaa tgtggtgctg atgggatgtt 480
gctgtgtctg ttgcaaccca atattttaaa caaggtaaaa gggttatatat gagcagaata 540
agagcttaac tccaagtagc taaggagaga aaccctcgag                                     580

```

<210> 1074

<211> 322

<212> DNA

<213> Homo sapiens

<400> 1074

```

gatggagaga aatcacaggc tggaggatat ggagagaaat cacaggctgg aggatatgga 60
gagtaatcac aggtctggagg atatggaggg taatcacagg ctggaggaca cggagagaaa 120
tcacaggccg gaggacacgg agagaaatca caggccggag gacacggagg gtaatcacag 180
gccggaggac acggagggta atcacaggcc ggaggacacg gagggtaatc acaggccgga 240
ggacacggag agaaatcaca ggcggaggga cacggagggt aatcacaggc tggaggatat 300
gcagagtaac cacagactcg ag                                     322

```

<210> 1075

<211> 399

<212> DNA

<213> Homo sapiens

<400> 1075

```

gtttatgtca tggttggtgc agatgtcccg ttttcttctt gtttacgaga agttgaaaat 60
ccacagaatc aattgagatg tagtcaagaa atggagcctg taataacatg tgataaaaaa 120
tttcgtactc aattttacat tgactggtgc aaaatttcat tggttgataa aacaaagcaa 180
gtgtccacct atcaggaagt gattcgtgga gaggggattt tacctgatgg tggagaatac 240
aaacccctt ctgattcttt gaaaagcaga gactattaca cggatttctt aattacactg 300
gctgtgccct cggcagtgga actggtcctt tttctaatac ttgcttatat catgtgctgc 360
cgacgggaag gcgtcatcca actggtccac cacctcgag 399

```

<210> 1076

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1076

```

gaattcgcgg ccgcgtcgac cgaaatgcac ctttggcttg catttggtgc tcagtgtatt 60
ctattggaca gtcagtgcat tatatactct gacttcagtt tggcatctca atttttgaca 120
ataacatatg aggggaaatc agaagccttt ctaaaagcta cagtttggtt gggcgtgcag 180
gctcatgcct gtaatcccaa cactttagga gagctcgag 219

```

<210> 1077

<211> 169

<212> DNA

<213> Homo sapiens

<400> 1077

```

gaattcgcgg ccgcgtcgac cgattaagca gttatgcatt actggggaaa ctacctttta 60
gagatttaga aaagcttttag aatttagtaa atcaataaaa aataggtata caatatttta 120
gacatagggt ttcaacatgt tacatggtgt gataatggag tgccctcgag 169

```

<210> 1078

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1078

```

gaattcgcgg ccgcgtcgac cacagccagt agatgattac ttcgtgggaa ggattcctcc 60
tcttcctcgt cctcagcccc ctctactctg ctccccgggg gccaggaccg ggtggagggg 120
gctgtgggaa ggattcctcc tcttcctcgt cc 152

```

<210> 1079

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1079

```

gaattcgcgg ccgcgtcgac cctgccttgg gcaaaatttg tgtgtgtggt tattcacaga 60
ggaggagcca gataggtagc tcagtccata aactatggaa ggtagcagta tcctttactg 120
cagtggcttt caaatttgac atgcaccaa atctcctgga gagcttgcta aaacatagaa 180
agcagggcct catccccac gtttttgatt cagtaggtct gggttggggc tcgag 235

```

<210> 1080

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1080

```

gaattcgcgg ccgcgtcgac ccacatctct ttgctttagt ctatggtaag gctattcaaa 60
ttctacattt tcattaggcc ttcctatgct actaaaggga ttttaattacg tgttcctcat 120
tctttttatt gaactgtgta tgtttttcat agtttctttg tattatgatt gtgtttcttt 180
cttctacctc cgaaagctcg ag                                     202

```

<210> 1081

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1081

```

ggctctgcctg cacttagaga accttacaga accatgtggc tgggtgggtga gaatgactcc 60
cagcataaac ggccctgcag tgcattgtgc gttctgagcc tcatcctttc cacaagtga 120
tcctggagag ccagcacagc ggccccactg ggccccctgt cccctgtcct ggcctcggct 180
tcttctgtaa catccccctt tctttcatat aaacatcaac gcagactcga g          231

```

<210> 1082

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1082

```

gaattcgcgg ccgcgtcgac cagcaaatcc caaatatcca gactgactcc tatgaaagta 60
tggcaaaaac cacaccaact ggtggccttc caagggaacc ccaagaactc atggttgata 120
accttttgaa tcagctctcg actctagcag ggcagttgtc cagtctgcca cccgaaaacc 180
aaaaccctgc atccccctgat gtagttccct gccctgatga aaagcctttc atgattcagc 240
agccctctac ccaagcagta gtttctgccg tatcagcaag tattcctcag agtcctcttc 300
ccacaagccc agaacctcgg ccattccata gtcaaaggaa ctatagtcca gtggcaggtc 360
caagcagtga gccaaagtgc cacacgagca ctcccagcga cctcgag          407

```

<210> 1083

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1083

```

gctctgagtt ctctttattt tgggtggtctc agtctctatc tttcacgttg tgaatttttc 60
tcaaatatat ggtgatccta tggatctgtt catgttttaa gagtgaggca tccaaaagct 120
gattggaagt tgtgtgtgcc aactggtgag cttttccact agggtcacca ggtgggcacc 180
tggactcatc attggagaac actgctctgtc agtatttgca cgtgttttct ctggggctca 240
ttctgtttct tgagagatat tcccactact ctcttctctg ggaaacgggc atacacaggg 300
cttttagcct atgctgagta ctcatgtggt ttcaaaaatg gtgtcccatc tgggcagaag 360
tcccctagag cacttggtct gactggcaaa ggacaccttt tgccccctcc tccagacata 420
cccagctctg agcttggaca atgctcgag          449

```

<210> 1084

<211> 216

<212> DNA

<213> Homo sapiens

<400> 1084

```

gaattcgcgg ccgcgtcgac cacttaaaaa tgccactgtc tgtgggttcg gtataaatcc 60
tgagtataac ttttcacagt gacaaaaatg attgagatgt actttactgg gttttttgtt 120
gttggtttgt tttttgagac agtctctttc tgtagccag gctggaatgc agtggcacga 180
tctcgactca ctgcaacctc tccatccaga ctcgag          216

```

<210> 1085

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1085

```

gaattcgcgg ccgcgctcgac ggagatgttt acatTTTTgt tgacgtgtat ttttctaccc 60
ctcctaagag ggcacagtct cttcacctgt gaaccaatta ctgttcccag atgtatgaaa 120
atggcctaca acatgacgtt tttccctaata ctgatgggtc attatgacca gagtattgcc 180
gcggtggaaa tggagcattt tcttctcttc gcaaatctgg aatgttcacc aaacattgaa 240
actttcctct gcaaagcatt tgtaccaacc tgcatagaac aaattcatgt ggttccacct 300
tgtcgtaaac tttgtgagaa agtatattct gattgcaaaa aattaattga cacttttggg 360
atccgatggc ctgaggagct tgaatgtgac agattacaat actgtgatga gactgttcct 420
gtaacttttg atccacacac gctcgag                                     447

```

<210> 1086

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1086

```

gaattcgcgg ccgcgctcgac aggatgtcca caactgtatt cctgagctgg acagtgagac 60
agccatgttt tctgtctacg atggacatgg aggttaacttt aacagatcat attggttaaca 120
ttctaggacc ccaattccag acgttccagg gcaagaacag gtccctttgt tcattttactt 180
tccagggtct ggccctcatt atcatttctt gcgtgggtgct gtttttctgt attctgtcat 240
tcttttttcc cagcaggctc gag                                     263

```

<210> 1087

<211> 428

<212> DNA

<213> Homo sapiens

<400> 1087

```

gaattcgcgg ccgcgctcgac ccaaaaacca aaaacaaaaa caaaacaata aactgaata 60
aagtcataat ggtaaataac attgcgttct tgcttggttt tagcgccctgc ttcgcgggttt 120
cctgcttgct gattgcgtac ggagcaagta aaccaaacgg tgagtgtcct ctccctccat 180
cttctgtcag ggaccgggga gagagtgtcc tgagtgtctc ccaggccacac ctgctcttgg 240
acaactgtct gggtctgtcg ctccctgtct aagtttagagg ggacacctgt tacgcctcta 300
ctcagttact tatctcaaat agacggcgag atcagagagc agccacccca gacaggagct 360
tccagggtat gagcaacttc catctcatca ccaaaccaag ccagtccttc actgatgaca 420
acctcgag                                     428

```

<210> 1088

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1088

```

gaattcgcgg ccgcgctcgac gtagaaagca tctgtagact tccgcagaaa gcatccgtag 60
acttccgtag aaagcactga tgatgttgta taaacagacc ataaggagat tgaagccctc 120
catgtattct gtttgccctt ggaatatatg tgcattgtga tgtgcttgtg tgtttatttt 180
catttgggtt tatgccctat ttttaatttg taggcagcaa ctcgag                                     226

```

<210> 1089

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1089

```

gaattcgcgg ccgcgctcgac gctgatcaac aggtgtgtct tcaaggaaatg ataacaggaa 60
ttcgaggatt atgcaatggt ctgggaccgg cctctatggt attcattttc tacatatctc 120
atgtggaact taaagaactg ccaataacag gaacagactt gggaacaaac acaagccctc 180
agcaccactt tgaacagaat tccatcatcc ctggcccaac ctcgag                                     227

```

<210> 1090

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1090

```

gaattcggcc aaagaggcct aatggccaat aatcacaggg gcttttgaaa atacgttcaa 60
cattactaat ttttttaaga gatgaggctt tgcttactcg ag 102

```

<210> 1091

<211> 646

<212> DNA

<213> Homo sapiens

<400> 1091

```

gaattcggcg ccgcgtcgac atcatgactg ttatttttat ttgcacttgc tggctcttgt 60
agcagcattc agcacagggtg ccaaaaatat cttcatrttg ggggcagatc tattttgaca 120
gtatttgact acatatagca agagtttgaa atatgttaaa cactagacat cctgggtatc 180
aaaaccaatg agcattactt tcatggcagc aagtgtcatg cagttatttt ctgaatttgt 240
caaagaggca gtagtttcta acccctgttc tatagtagtt acaacaattt cacaacctat 300
gtttacagat tcttcataaa tacatgcata ctgacactat aatcatggga ggtgtaacca 360
tgatttagtag gcgagggtacc taccactttt tttttttctt cccctggcta cttgagtaga 420
atgcattata ccagatctgg tcactttcat tgaaatgggt tctaattttc tcccaagtg 480
ctgttgggtt tttttcttct taaggaaaac gttgtcactt ttatgttata aacttgaatt 540
tataaagtgc tggtaaatga tttttaatga tttagtgca tgttttaaac ctctaggacc 600
agagcatagt cagagcattt tcttttaaat tgtgcactaa ctcgag 646

```

<210> 1092

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1092

```

gaattcggcg ccgcgtcgac ctgtaaattc atttgtcatt caaagcggaa taacaagttg 60
tccctagcaa aaccgctgag cgctttataa ttttgtgggt tatttttgtc agtaggtagc 120
agaggcggaa gtattttttg gtgtaattct tgaaattttc tgacaggaaa caaataaaga 180
tagatgagtc tcgag 195

```

<210> 1093

<211> 709

<212> DNA

<213> Homo sapiens

<400> 1093

```

gaattcggcg ccgcgtcgac atcacagggtc tgtggtggcc ccgaaatggg gggcctgcta 60
gtcaggagga tgctgtgcac actgtgtgtg atgaatctcg ccagaaaggc tcctgaggtc 120
ccaggttggc acttctccct gcagccattg tagaagatct gctggctcct gcaggcaaag 180
ctacagccag aatgtccggt tgaaactcct agctcatctg tcaccgagct tcatccgaat 240
gtgccacgga gcttgccttc cacttccttc gtgcagcggc cctgccacag ceetccctcg 300
gcacactttg accctttgtg ggattggaat tagcaggact cggctattta aagcaccagt 360
ctgggggtgc ctgggcccct gctgacccct tcttcagag cagccagccc agcccgggaa 420
caagacggac ttcctctccc ttcggactca cagcctttgc agagtcaagc tccacttgaa 480
gtcactcag taatactctt tcaatgtgtt ttatatgtt ttgactgcct tttttttag 540
aaataaaaat tgaccttaga atttatcgtc agataaactt gtaaagattt gaatattaat 600
gtcttttcaa ggcaaatggg attgtccccg cactagtaga gaatccatgt cgctctgaca 660
ccccaaggaa gccgacgac caaatgccgt gtgtcaccaa cccctcgag 709

```

<210> 1094

<211> 770

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> (44)

<220>
 <221> unsure
 <222> (66)

<400> 1094
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 aactgcaccc acagtcttct tccactgact tcctaataaa gataaaacac cagacgtcaa 180
 aacctatatg aggcgagtga agcttgacat ttatgccaaa aaaagggtgc ccctctaggg 240
 aaaaaataac tgccctcctta aggactcaag atcattaatc ctcatcctc ccactaatta 300
 ccttttctac tcctatccag tctcatgagg gatgatgttt tattatgttc ctccgtgttg 360
 aggggctaag ccattgtctt ctactcaata aatttttact gagcttctat tatgtatcag 420
 gaactgtgcc aggcattggag gctaaaaaca tgtataatta tagtagtaac cttcattgag 480
 tactgactat gtgccagcta ttttaaatgt attatctttt aaatcctccc aacagcccta 540
 tcaaatagg tactattatc acccccactt tacagatgag gaaatcgatg cacagagaaa 600
 ttaagcacct tgcttatggg cataagtggg agaagtagaa ctttaaacct acctttctct 660
 agtaccagag tcaaaaacttt cartgtaaca tgtacattac tgtgataagg attttgcgt 720
 atctcatgtg attgtcacag aaaacacat aaggcaggg caacctcgag 770

<210> 1095
 <211> 774
 <212> DNA
 <213> Homo sapiens

<400> 1095
 gaattcgcgg ccgcgtcgac caatttatgt ggcatttaaa gaattttgaa attcattgta 60
 ttttgtttat cctttttcta tgagtattcg aatttctatt ctctgtctta tatcagagat 120
 ttttaatttg tcttatagtt agttaactta aacctgtggc ctagggttag cattaaactga 180
 attagttcag attatttctc ttauccratt gttgcgtata gtattttagg tttttgttga 240
 gatggatact attgtatatt caaaaatgca tagaacttgt caaagatagc ttaatttgcc 300
 tttctacctt cataaaaatg ttaaaagtta agggattttt aaaatgtcat tagatattct 360
 tatctgaatc atttatatat taccataaat cacagttgta ttaagtcagc catgaagatt 420
 tctcctctaa tgcaaatgaa cgcataaggt atctagaag cgtaatttg tgaggggaaca 480
 aattaaagcg gttagaattg ctgtggagct gtatatgata gatgaaatat ttttaattgaa 540
 gacacaaata gttctaatat ttctaattgag aaagtgtgta gatcatttaa tgtcgtagga 600
 gaccaaaagta gaaatttggg aaaagtaaaa atgactccta aattaccag caagttgtaa 660
 agatacacct ttctcagcat gcatttctat gatagcataa caatgtataa tatactctgat 720
 tactgtcata attgactacc ttgaaagata atggttctaa ggggtcaaac cgag 774

<210> 1096
 <211> 618
 <212> DNA
 <213> Homo sapiens

<400> 1096
 gaattcgcgg ccgcgtcgac gtagtatgtt ctttttttgg aacagggtag gcattttgtt 60
 tattgtttgc ttgcttctag gtgttttctc catcagggtg tattggagggc tgacacttaa 120
 tgggtgtgtg ttacgcccag aactgctcgg tgcgggggtt ctaaaagaat gcgctggtgt 180
 tcttggtctc aagtttctgc tttggagaag cagattcagg aagtaggtgt tgcttaaaaa 240
 taactcttgg tttttatcta atcagatatt cattgattac ctaccagggt ccagttatag 300
 ggtgttttgt ttactcaaga atgaagtaga actattttta aaacctgttt ccatgagtgt 360
 tcacgttagg tgacctaaagc tttgaaggag aaaaacattt tctgggtatg aataatgagt 420
 tttgtaatca attcccagtt agaagaattt cagtctctgg gccattgagc ttggcagtg 480
 tgagatctcc catgtgacag aagcctggca tctgggcccac caaggctcac tgactgtgta 540
 ccttgacagc tgtagacca tgtcgtggcg gtaacggggc caaacacagt cattccccatg 600
 tgaacgatga aactcgag 618

<210> 1097

<211> 863

<212> DNA

<213> Homo sapiens

<400> 1097

```

gaattcgcgg cgcgcgcgac gtttcagctg gattatgggt tggattgggt catatgttag 60
actccataca ggcataagcta tgatgcagtg aatcccttag aagttacaat tctcaaatta 120
catacttcct cagatgtaac attagaactc aatatttcta acaataacat accagaaaag 180
gctggactgg cactcatctg ctgactaact tgtagcctca gtaatatgac atacttgctt 240
ttaacaaatt atctcaaatt aactaacaga ccttcagaaa atggagattc tttttgatgg 300
ggacataatc aaatttaagt ctgagaaata tgcttaacag ttggaactca aattaaatgt 360
actgatttta aagtttagac attacaagt gatagattag cctcaaaaaa agacaatttg 420
gtaaggttta ggtcttttaa tttggtgctt gttcacaaact tgactgggtg tcttttcctt 480
gctgtcttca catcaagcca tggggccaat tctattttca gtaaatgttt gacagctttt 540
tacttagtaa cagtctcagc acttttatta agcatgcaag actaacaata actttggcaa 600
tgcataagtg taacacagtg acaagagagc ttttacaatt aagtcttcta atactgcctt 660
cacagtgtgg aaattgtgct acatccacca aaagagggcc ccgtctactc aaatatttcc 720
gtacttcacc ccaggaacaa actcctttgc atttggaattc agattgctct tgaccacaag 780
atcttcaga gaagagccat cactgataac aaggtcatta aactggtctt ggatttggtc 840
catagtttgt gggagatctc gag                                     863

```

<210> 1098

<211> 663

<212> DNA

<213> Homo sapiens

<400> 1098

```

gaattcgcgg cgcgcgcgac cgcagcccca tggctggggg ttatggagtg atgggtgacg 60
atggttctat tgattatact gttcacgaag cctggaatga agccaccaat gtttacttga 120
tagttatctt cgttagcttc ggtctcttca tgtatgcaa aaggaacaaa aggagaatta 180
tgaggatatt cagtgtgcca cctacagagg aaactttgtc agagcccaac ttttatgaca 240
cgataagcaa gattcgttta agacaacaac tggaaatgta ttccatttca agaaagtacg 300
actatcagca gccacaaaac caagctgaca gtgtgcaact ctcatggaa tgaaacctca 360
gaaaaagagc aacagaagta attgtctcaa gctcctgatt ctttctacta aatcatgaac 420
agctttaaaa acatttctgt ctgcataaaa ttattttact tgtaactttt ccccaattgt 480
tctgtgcatt gttttgcctt tttaaattac atctccaagt ggctcaaaag gccttgacac 540
agggaacctg cacatatcca ggatatgtgt aaccagcgat ggtgacttga ccttgccaag 600
acctgtgatt ccttcaggat acaatcagtg agaaataaaa acacatcttg ggaagtgtct 660
gag                                     663

```

<210> 1099

<211> 536

<212> DNA

<213> Homo sapiens

<400> 1099

```

gaattcgcgg cgcgcgcgac atcttgagag acataagcca catattgttt agtcaacaat 60
ctcaaatgca gtggtttttt tgacacgctc ctccctgggt tttatgtata ccacagaatc 120
agccacgtta cagtttgaat taatcatttt cttcaaaagg agtcccagaa gtgaacccaa 180
acaaaaagct actatccctt tacagtggga aagtagaaga cactggtgat gtactcagct 240
ttcatctttt atccttcgat gataaattga cccaaatgta cctctggcca ggaagaagca 300
aggaatttaa atagtactag atgtcaaaaca atactattaa aatacttcca atttgaatat 360
cacatcacag tttgaaaaat gcattctcat ttattattgc tttgttctcc tgtagtacaa 420
aagggaaaaa ttgaggttaca catctaggaa tcaaaactcat gtcttctaatt tcttgagcta 480
tatctacttt ggtctatagc ttctaaattt gtaatagaag ctccagaaata ctcgag 536

```

<210> 1100

<211> 586

<212> DNA

<213> Homo sapiens

<400> 1100

```

gaattcgcgg ccgcgtcgac ctccagagtc gcccaatctt ggaatcttta agggatgagc 60
cagaccacaga cccgcggcct tctagagagg gtccggcagg gagggtcggc gccctggccc 120
gggggtgggccc ggagccctgt gatgctgcat cgcgccccagg agggagccagc tgtgccccag 180
agttggcgcg gccgagagag gacaagagcg cgcagcaggc gaagctggag ggcgggactc 240
gactttgttg tcgctgcccg gaggagtcga gactgggtacc cggaggagct gtctcaccag 300
gagaccacgt cctggaagtg tccgggactc gcgggacctg tggctgcaga ccccgccggc 360
acgcaggccc agagctggcg cactcctgag gatgagactc tgggggccct agccgggggtc 420
cacgggaggg ctgtccttgg ggactctagg atggcttcgt tctggccggg ctcaacttctg 480
gagctgtgag acccaagaca aaaggggctg agggatttct cattgacaag agttcgtgcg 540
ggaaaaccac ctgacccta gggattctgt atcttggact ctcgag 586

```

<210> 1101

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1101

```

gaattcggcc aaagaggcct aaaccgtcga ttgaattcta gacctgtgt tttgaattcc 60
tgcaaaactct ctctctctct ttttttctct ttaaatgggc gcactttgtt gccagggtg 120
gagtcagtg gcacgatcat ggctgactgc agcctcaacc tcctgggttc aagggatcct 180
cccagctcag cctcccaagt agttgggact acagccgcac cactcgag 228

```

<210> 1102

<211> 905

<212> DNA

<213> Homo sapiens

<400> 1102

```

gaattcgcgg ccgcgtcgac ctacttttct tggaaatgca aaagattatg catatttctg 60
tctctcttct tctgttttta tggggactga tttttggtgt ctcttctaac agcatacaga 120
taggggggct atttcttagg ggcgcccgatc aagaatacag tgcatttcga gtagggatgg 180
ttcagtttct cacttcggag ttcagactga caccacacat cgacaatttg gaggtggcaa 240
acagcttcgc agtactaat gctttctgct ccagtttct gagaggagtc tatgtatttt 300
ttggatttta tgacaagaag tctgtaaata ccatcacatc attttgcgga acactccacg 360
tctcttctat cactcccagc ttcccaacag atggcacaca tccatttgtc attcagatga 420
gacccgacct caaaggagct ctcttagct tgattgaata ctatcaatgg gacaagtgtg 480
catacctcta tgacagtgc agaggcttat caaactgca agctgtgctg gattctgctg 540
ctgaaaagaa atggcaagt actgctatca atgtgggaaa cattaacaat gacaagaaag 600
atgagatgta ccgatcactt tttcaagatc tggagttaaa aaaggaacgg cgtgtaattc 660
tggactgtga aagggataaa gtaaacgaca ttgtagacca ggttattacc attggaaaac 720
acgttaaagg gtaccactac atcatcgaa atctgggatt tactgatgga gacctattaa 780
aatccagtt tggagggtgca aatgtctctg gatttcagat agtggactat gatgattcgt 840
tggtatctaa atttatagaa agatgggtcaa cactggaaga aaaagaatac cctggaactc 900
tcgag 905

```

<210> 1103

<211> 497

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (32)

<220>

<221> unsure

<222> (124)

<220>

<221> unsure

<222> (325)

<400> 1103

```

gaattcgcgg ccgcgtcgac gacngacacc anaccagaga tccaggaagc tcagagaaca 60
tcaagcagga taaatgcccc aaaaactaca tctaggcata aaatttttcaa atgacagaaa 120
atcnaagaga aagaaaaatc ctgaaagagg aaaaaataaa caaccttact cagagaggaa 180
caaagataag aattacttcc agcttttctt cagaaacat gaaagcaaga gaagagtggg 240
gtgaaatatt taaagtgttg aggccgggca cagtgggtca cacctgtaat cccagcactt 300
tgagaagcca agacagaaag atcanttgag atcagcctgg gcaacatggg gaaaccccat 360
ccctacaaaa aaaaaaagtt ttttaattag ctgggtatgg tgggtgcacac ctgtgggtccc 420
agctgagtgg ccctagagtt tghtaatatac agctaaccaca agtccacttt caaataaacac 480
tataccactt cctcgag                                     497

```

<210> 1104

<211> 683

<212> DNA

<213> Homo sapiens

<400> 1104

```

gaattcggcc aaagaggcct actctttggc cggccaaaga ggcctatggg actctgcgcc 60
accctcgccct gctcgcacca gccttccgag tgcacactcc tccgactacc cgctgcctcg 120
aagtcgctcc tccagtgcct ccgcgcgctc ccgggtcacc ccacgcccac tttccacgat 180
cgcgcgctgc ctcaaccccc ggcggttctg gcgctcgcta cccagtgggc aaccggccgg 240
accttcggac ccgcgaggtt tctgcttagt aactcccaat cctgaaaaac tccaaccctg 300
tggagtcccc ccataatcaa gaacgccccct cagcccgcca actgcccggc aaagactctc 360
cctgaacctt ccgggacggc acgaagcgcg cccgaccoga ggtgccacgc agtgaggagc 420
acccagctcc tgaggcccc tggggcccg gcggcacgcc ccgactctgc ttggagaccc 480
ccaacttgct tagagagggc actgctccaa gtcttactcc ctctggggag cgccttcccc 540
cgacccttga gggggccgcc tgcgcggagc tcgggtgcacc caccttgcgc cgcagaagta 600
tctgggacgt gcagccccgg ggccgcggcg gctcggcgcg cgctggggag aagttggcag 660
aagccgcccc tcaacacctc gag                                     683

```

<210> 1105

<211> 970

<212> DNA

<213> Homo sapiens

<400> 1105

```

gaattcggcc aaagaggcct agaagaattt ccagtgcacat ttgtaatga cgcgcgtcga 60
ttccaggctc caagcggccg ctgcccgcgc cgccgcccgc gggccgaagg tgccgcccag 120
cagtctccag cgcaggtctt cttaccgggc gaccacaatg tccgagtttc tctcgcctt 180
actcactctc tcgggattat tgccgattgc cagggtgctg accgtgggag ccgaccgaga 240
tcagcagttg tgtgatcctg gtgaatttct ttgccacgat cacgtgactt gtgtctccca 300
gagctggctg tgtgatgggg accctgactg ccctgatgat tcagacgagt ctttagatac 360
ctgtcccag gaggtagaaa tcaagtgcct cttgaatcac attgcttgcc ttggtaccaa 420
caaatgtgtt cttttatccc agctgtgcaa tgggtctctg gactgccagc atgggtatga 480
cgaaggagta cattgtcagg aactgttatc caattgccaa cagctgaatt gtcagtataa 540
atgtacaatg gtcagaaata gtacaagatg ttactgtgag gatggattcg aaataacaga 600
agatgggaga agctgtaaag atcaagatga atgtgctgtt tatggtacat gcagccagac 660
ctgcagaaac acacatggat cctacacttg cagttgtgtg gaaggctacc taatgcagcc 720
agacaacaga tcttgcaagg ctaaaattga acctacagat agaccaccta tactattaat 780
tgcaaatatt gaaacaattg aggttttcta tottaattga agtaaaatgg caactctaag 840
ctcagtcatt ggaaatgaaa ttcatactct ggattttatt tataatgaag atatgatttg 900
ttggattgaa tcaagagaat cttcaaatca actcaaatgt atccagataa caaaaacagg 960

```

aggactcgag

970

<210> 1106

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1106

gaattcggcc aaagaggcct acgagaggcg tgtgagtaaa aaggaacagg acagcatcgc 60
aattcggtgt taagggtgctt ttgaaaaaaa aaattatttc gagtgatgtt gctcatgcag 120

<210> 1107

<211> 541

<212> DNA

<213> Homo sapiens

<400> 1107

gaattcggcc aaagaggcct actggatttg gactaaagaa aaaaggaaag gctagcagtc 60
atccaaaaga atcatgagac agactttgcc ttgtatctac tttcggggg gccttttgcc 120
ctttgggatg ctgtgtgcat cctccaccac caagtgcact gttagccatg aagttgctga 180
ctgcagccac ctgaagttga ctcagggtacc cgatgatcta cccacaaaaca taacagtgtt 240
gaaccttacc cataatcaac tcagaagatt accagccgcc aacttcacaa ggtatagcca 300
gctaactagc ttggatgtag gatttaacac catctcaaaa ctggagccag aattgtgcca 360
gaaacttccc atgtttaaag ttttgaacct ccagcacaat gagctatctc aactttctga 420
taaaaccttt gcctttctga cgaatttgac tgaactccat ctcatgtcca actcaatcca 480
gaaaattaaa aataatccct ttgtcaagca gaagaattta atcacattag atccactcga 540
g 541

<210> 1108

<211> 950

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (316)

<220>

<221> unsure

<222> (412)

<220>

<221> unsure

<222> (431)

<220>

<221> unsure

<222> (463)

<220>

<221> unsure

<222> (492)

<400> 1108

gaattcggcc aaagaggcct attcagattt ctttttttgc tcttttaaga ggacatttcg 60
ctactgattg tgatattttg ttttgcagag taacagctat ccaccaatgt cagatccata 120
catgcctagt tactatgctc catccattgg atttccatat tctcttgggg aagcagcgtg 180
gtccacagct ggagaccagc ctatgccata tctgacaacc tatggacaaa tgagtaatgg 240
agaacatcac tatataccag atggtgtatt tagtcaacct ggggcattag gaaatacccc 300
tccatttctt ggtcancatg gatttaacct ttttctcgtt aatgctgatt tctctacatg 360

```

ggggacaagt ggatctcagg gacaatcaac acaaagttct gcttatagta gnagttatgg 420
ctatccacct ngttctcttg ggagagctat tactgatgga cangetggga tttggcaatg 480
atactttgag ttaggtgcct ggcattagca gtattgagca aggcattgact ggactgaaaa 540
ttggtggtga cctgacagct gcagtgacaa aaactgtagg tacagctttg agcagcagtg 600
gtatgactag cattgcaacc aatagtgtgc cccagtttag cagtgcagca cctaaacca 660
cctcctgggc tgccattgcc agaaagcctg ccaaacctca accgaaactt aaacccaagg 720
gcaatgtggg aactgggggt tctgctgtac caccacctcc tataaaacac aacatgaata 780
ttggaacttg ggatgaaaaa gggtcagtgg taaaggctcc accaacccea ccagttctgc 840
ctcctcaaac tataatccag cagcctcagc cattaattca accaccacca ttggtgcaaa 900
gccaaactgcc tcaacagcag cctcaaccac cacaaccaca tcagctcgag 950

```

<210> 1109

<211> 627

<212> DNA

<213> Homo sapiens

<400> 1109

```

gaattcggcc aaagaggcct acaggggaaa agtaagctcc tccaaagttg cttgcagtcg 60
tggaataaga tctcattttt aggtttctct ttcgttccag ataccataa aatgggacag 120
agaataaaat ttttgttaaa atatgtgtct atctcctaag tagctcttca gagtctgacc 180
gtaagtaaaa acacacagaa ttgtgttgac tgggggaggt gaatcacaaa aaagttacga 240
ggagttaag agttaaatat tatttgatcg tggctgtcaa atttagtgaa caacatagat 300
tggaattgga gttggtagta ggtatggttc tcataccaga attctcttaa aaaaaaaaaa 360
aaaggacaat tgggaattgcc ttatttattt ttaaaatcaa tgcttactag ttggttaggat 420
tcccaggtea gcagcagggt tgattaaata atcttgacaa tgagcagctg ccattctggg 480
ggatttcatt ctgtggtttt ttaaatgttt cgtctttgat gctaccatcc agggcttctt 540
attgtgacct tgtagcctat ttgttctctg ctgttctcta acatgggtgca gttcacgcag 600
actggtttag gtacttcccc actcgag 627

```

<210> 1110

<211> 844

<212> DNA

<213> Homo sapiens

<400> 1110

```

gaattcggcc aaagaggcct agatcgagca tcataaagca agctctgctt tagtttccaa 60
gaagattaca aagaatttag agatgtattt gtcaagattc ctgtcgattc atgccctttg 120
ggttacggtg cctcagtgta tgcagcccta ccctttggtt tggggacatt atgattttgtg 180
taagactcag atttacacgg aagaagggaa agtttgggat tacatggcct gccagccgga 240
atccacggac atgacaaaat atctgaaagt gaaactcgat cctccggata ttacctgttg 300
agaccctcct gagacgttct gtgcaatggg caatccctac atgtgcaata atgagtgtga 360
tgcgagtacc cctgagctgg cacaccccc tgagctgatg tttgattttg aagggaagaca 420
tccctccaca ttttgagct ctgccattg gaaggagtat cccaagcctc tccagggttaa 480
catcactctg tcttgagca aaaccattga gctaacagac aacatagtta ttacctttga 540
atctgggctg ccagaccaa tgatcctgga gaagtctctc gattatggac gaacatggca 600
gccctatcag tattatgcca cagactgctt agatgctttt cacatggatc ctaaatccgt 660
gaaggattta tcacagcata cggctcttag aatcatttgc acagaagagt actcaacagg 720
gtatacaaca aatagcaaaa taatccactt tgaaatcaaa gacagggttc cgttttttgc 780
tggacctcgc ctacgcaata tggcttccct ctacggacag ctggatacaa ccaagaaact 840
cgag 844

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<210> 1111

<211> 832

<212> DNA

<213> Homo sapiens

<400> 1111

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gaattcggcc aaagaggcct agttgtgtcc ttcagcaaaa cagtggattt aaatctcctt 60
gcacaagctt gagagcaaca caatctatca ggaagaaaag aaagaaaaaa accgaacctg 120
acaaaaaaga agaaaaagaa gaagaaaaaa aatcatgaaa accatccagc caaaaatgca 180

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caattctatc tcttggggcaa tcttcacggg gctggctgct ctgtgtctct tccaaggagt 240
gcccgtgccc agcggagatg ccaccttccc caaagctatg gacaacgtga cggtcgggca 300
gggggagagc gccacccctca ggtgcactat tgacaaccgg gtcaccggg tggcctggct 360
aaaccgcagc accatcctct atgtctgggaa tgacaagtgg tgcttgatc ctgcgctggg 420
ccttctgagc aacacccaaa cgcagtacag catcgagatc cagaacgtgg atgtgtatga 480
cgagggccct tacacctgct cggtcgagac agacaaccac ccaaagacct ctagggtcca 540
cctcattgtg caagtatctc ccaaaattgt agagatttct tcagatatct ccattaatga 600
agggacaatc attagcctca cctgcatagc aattggtaga ccagagccta cggttacttg 660
gagacacatc tctcccaaag cggttggctt tgtgagtga gacgaatact tggaaattca 720
gggcatcacc cgggagcagt caggggacta cgagtgcagt gcctccaatg acgtggccgc 780
gcccgtggta cggagagtaa aggtcacctg gaactatcca ccatacctcg ag 832

```

<210> 1112

<211> 466

<212> DNA

<213> Homo sapiens

<400> 1112

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gatggagccc agcaccggcg cccgggcttg ggcctcttt tggttgctgc tggccttget 60
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ggagactcat tegettctt tccggagcct gaaggaccgg ggettgtgagc tcacattcaa 180
gaccgtgatg gaccccgacc tgtctctcat aaagtatggg gaattcctct atgacaatct 240
catcatcttc tccccttcgg tagaagattt tggaggcaac atcaacgtgg agaccatcag 300
tgcttttatt gacggcgagg gcagtgtgct ggtagctgcc agctccgaca ttggtgacct 360
tcttcgagag ctgggcagtg agtgcgggat tgagtttgac gaggagaaaa cggctgtcat 420
tgaccatcac aactatgaca tctcagacct tggccagcaa ctcgag 466

```

<210> 1113

<211> 668

<212> DNA

<213> Homo sapiens

<400> 1113

```

yaattcggcc aaagaggcct aagcagagca gaatgcagg gttactgtgt tgaacaaaag 60
gcacacatca gagagacagt tgcaaaactca gaatactgcg ttatgggcaa aactaactgg 120
tccacaagag aaaatgagag actcgatttg gctgccagga acacctgggc ctaggcaaga 180
acacaagagg tttctggggg tggggaggaa ataggtctcg ctgaagggtga cagatccctt 240
ggggggcgcc cagctgtctg gatcactgtc cagggactgt ggcagccca gatacctcg 300
aggtgagtc agatcactag gaggcagcgt ctgtcgggtg gatgcgatgg atggcgatgg 360
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agagggcttg gcagcgccgg cagtggggtg tctgtccagt gtgtaacagg agcccagctt 480
gcagctggag cgcaggacag cgtccaaatg tacatgggag gggctggctg gctggaagga 540
gagggcgccg gctcgctcca gagtgaggcc cagggcgcc agcaggagcc tggagcgcta 600
ttcttgaac aaaggcaagc actacgcggg agggaaacagg agcgagggg acatcgccgc 660
ggctcgag 668

```

<210> 1114

<211> 395

<212> DNA

<213> Homo sapiens

<400> 1114

```

gaattcggcc aaagaggcct agttgaatgt atatatcaag gcttaaaatc ctcatattgt 60
ttgcaacaga atagttgta taagtttatg atttgggagc caatgaaaat agtgtcattt 120
ttcccttgta gaataaaagc tcaaggtagt gtcaagtctt cagaaaagtaa acttagcaca 180
gtgggtctca aactctgcag tgcgttaaaa ctacagattt ttggggcctg gcccgaagat 240
tctgccacg taggtctggt gggtagccca gggatgtttg ttttaacaa gactgcagg 300
tgattttttt tgtttttact tttattttt tcttgagcaa ctttgagtcg aaagcagatg 360
atttttagta aatgatttat gcactacagc tcgag 395

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<210> 1115
<211> 658
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (461)

<220>
<221> unsure
<222> (573)

<220>
<221> unsure
<222> (578)

<220>
<221> unsure
<222> (590)

<400> 1115
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tctttcaatg aaatataact gcccataattt tttaaaaaag cctccgcctc cttaaactctg 120
gctcaattct gctgacttga tatattactt tagatttaga gaatcccaag ggatagctct 180
ctggatatta tgtaattaa tagtcttrgc cccctctcct cttctattag gtaggaaaac 240
attttctaga gaatagaaag aagtcctctc ataacctggc gttttccctc ctcggttatg 300
tattagataa ttagataaat tggaccttat aatctatctg ttaagttcct gttataccta 360
gattatatct tggttcttct gcttgaatct caacatcaca ttttgtcca tttaaagtcc 420
tttcaaaactg agctcttttg caaacagctt cctatgcagg naaccagagt tatttactag 480
gtccttaaca tgaatcccca aattttatct tagatgatac tgaatttttg tgcctttgcg 540
aaagtcatgt taaatatgtt aaaaccatac cgnaaagntt aacacacacn tacacaaaaa 600
aaaaaacctat actaaaaaaa atacccaaag aaaaactcat aataccaggg cactcgag 658

<210> 1116
<211> 559
<212> DNA
<213> Homo sapiens

<400> 1116
gaattcggcc aaagaggcct atagacctgt ctcgaggcag gtctagaatt caatcgacgc 60
cgccatgggt aacctgttcg gccgcaagaa gcagagccgc gtcacggagc aggacaaggc 120
catcctgcaa ctgaagcagc agcgggacaa gctgaggcag taccagaaga ggatcgccca 180
gcagctggag cgcgagcgcg ccctggcccc gcagctgctg cgggacggca ggaaggaacg 240
ggccaagctg ctgctcaaga agaagcgata ccaggagcag ctcttggaaca ggacggagaa 300
ccagatcagc agcctggagg ccatgggttca gagtattgag ttcacccaga tcgaaatgaa 360
agtgatggag gggctgcagt ttggaaatga gtgtctgaac aagatgcacc aggtgatgtc 420
cattgaagag gtggagagga tcctggacga gacgcaggag gccgtggagt accagcgga 480
aatagacgag ctcttggcag gaagcttcac tcaggaggat gaagacgcca tcctggagga 540
gctgagcgca acactcgag 559

<210> 1117
<211> 486
<212> DNA
<213> Homo sapiens

<400> 1117
gaattcgcgg ccgcgtcgac aaatctactg tctgtcactt ggatgttgat gtggctatag 60
ttagttcatg tttgttaaat gactacaact gggaaattat gtctactgtc cttttgtaca 120
agttcaaaag atgacagcca cccatctaaa aatcctgagg cctatagaag atgcatgagg 180

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agtcctctgtc tccagggttta ccacttatgc ttcttattag gatggcttgt tatacatagc 240
acttaaatagt agtttcttct cttttctctt ttgcataatag gatcacagtc accttctata 300
tagcaccatc cccaggatgc aggagccggg gcagattgtg gagacctaca cggaggagga 360
tcttgaggga gccatgtctg tagtctctgt ggagacctca gatgatggga ccactcggcg 420
cacagagacc acggtcaaga aagtagtgaa gactgtgaca acacggacag tacagccgtc 480
ctcgag 486

```

<210> 1118

<211> 903

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (325)

<220>

<221> unsure

<222> (334)

<220>

<221> unsure

<222> (345)

<400> 1118

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gaattcggcc aaagaggcct aggccttcgat gttagccggg acccgactca gatcgatgct 60
atagaagaca aacaagggaa ggtttttttt ccttttgcac catggctcaa tttggaggac 120
agaagaatcc gccatgggct actcagttta cagccactgc agtatcacag ccagctgcac 180
tggtgtgttc acagccatca ctccctggag catctcttac catttataca cagcaaaactg 240
cattggcagc agcaggcctt accacacaaa ctccagcaaa ctatcagtta acacaaactg 300
ctgcattgca gcaacaagcc gcagntgcag cagntgcatt acaancagca atattcaca 360
cctcagcagg cctgttatag tgtgcaacaa cagttacagc aacccagca aaccctctta 420
acacagccag ctgttgact gcctacaagc cttagcctgt ctactcctca gccaacagca 480
caaataactg tatcatatcc aacaccaagg tccagtcaac agcaaaccga gcctcagaag 540
cagcgtgttt tcacaggggt ggttacaaaa ctacatgata catttggatt tgtggatgaa 600
gatgtattct ttcagcttag tgcgtgcaaa gggaaaaccc cccaagtagg tgacagagta 660
ttggttgaag ctacttataa tcttaatatg ccttttaaat ggaatgcaca gagaattcaa 720
acactaccaa atcagaatca gtcgcaaac cagccattac tgaagactcc tcctgctgta 780
cttcagccaa ttgcaccaca gacaacattt ggtgttcaga ctacagccca gcccagtc 840
ctgctgcagg cacagatttc agcagcttct attacaccac tattgcagac tcaaccactc 900
gag 903

```

<210> 1119

<211> 1018

<212> DNA

<213> Homo sapiens

<400> 1119

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gaattcggcc aaagaggcct actgacttct ggtcttggag aaaatgcttg tgtaaagaaa 60
agtcatgaaa agtaccttat agctttaaag agctctggac ttacatatcc tgaggataag 120
cttgatatag gtgtgcagga gccatctgct ggtactagtt ctctggctgt tcaaggtttc 180
ataggcgcaa cagggaacttt gggacaagtg gattcttcag atgaggatga tcaggatggt 240
agtcagggtc tgggcaagag aaaaagggtt aaactaagca gtggcaccaa agatcaatcc 300
ataatggatg ttttgaagca taaaagcttc ctagaagaac tattattttg gactataaaa 360
catgaattcc ctcaaaagat ggttaacttt ttactcaaca tgcttccaga tcaagagtat 420
aagggttgctt ttacaaaaac ttttgttcag cattatgctt tcattatgaa aacactgaag 480
aaaagtcag aatcagacac aatgtctaac agaattgtgc atattagtgt tcagttgttc 540
agcaatgagg agctagccag acaggtaaca gaagaatgtc agctgctgga tattatgggtc 600
actgtgctat tatacatgat ggaaagttgc cttattaaaa gtgagctaca agatgaagaa 660
aatagtttac atgtggtagt gaactgtgga gaagcattac tgaagaataa cacttactgg 720

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cctcttgtta gtgactttat taatattctt tctcatcaaa gtgtggccaa gagatttttg 780
 gaggatcacg gtttgttagt tacatggatg aactttgtat cttcttttca aggtatgaac 840
 ttaaaccaagc gagaactaaa cgagcatgtg gaatttgagt ctcagacctt ctatgctgcc 900
 tttgctgctg aacttgaggc ctgtgcacag ccaatgtggg ggcttttctc acattgtaaa 960
 gttagggaaa ctcaagagta taccgcgaat gttgttagat attgccttat agctcgag 1018

<210> 1120

<211> 452

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (71)

<220>

<221> unsure

<222> (348)

<220>

<221> unsure

<222> (387)

<220>

<221> unsure

<222> (440) .. (441)

<400> 1120

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 agtangggagt naatttgtcc actatgtatg tacacagcag tctcgaataa actgcaaaca 120
 tgytaacaaca gttataattt gaaagagtct tccaaatgtg aacattctgg cctagaaccc 180
 ttccccatctc catcaaccca gtgggcaaga atgctcaaat ttccagaaga cagtctttcc 240
 taggacttgt aaaacaaaat gtacaaaata tattagttaa ctaactctag ttttgttata 300
 cactggcaac ctctttaaca tccagaaaaga ctagatgttg taaattanga ctcgtttgtc 360
 ctttatgtac attatataca tagatanaac aaaatgcaca gacatagtga ttcattctgc 420
 ctcgctgtaa gcaggatggn nttaaagctcg ag 452

<210> 1121

<211> 427

<212> DNA

<213> Homo sapiens

<400> 1121

gaattcggcc aaagaggcct actcacctat cacttcaaag gggtaaaaat actctttctgc 60
 tcaaaactgta ttcagctctct cytgtcaatg gaaaatgggtg tgttacagat agaaaattct 120
 aaagaagatc tcacatttca aaattaatac ctaattttac tcagtaatta cattttattt 180
 caaacatatg cccttacaat tagtcttgaa ttggaatcta agtttcataa cttctgggta 240
 agatgaccat ttagtaaaact gcctaccaat tttagtttac ttatctgtta agcaccatag 300
 tatttatgat ctatataaga ttgtaatgaa aactacattt ttgtaaaaca ccatacatag 360
 tgctcagtat gttcttccct cctgccattt cttatatctt ttgattaata cctttaaata 420
 actcgag 427

<210> 1122

<211> 453

<212> DNA

<213> Homo sapiens

<400> 1122

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gaattcggcc aaagaggcct atccagggtta aggtatccag cctttatcat ataagcattg 60
acattatcca ggcctagtag gtagcagtag ggtaacggga ttgaaaaaga ttgatggag 120
aggaaagtat ctaatattag tcatggtttt gacctaaatt gctagacagt cgtgccattc 180
acaaagtcag aaaatacagc aggaagagac agctttttaga ggggcagaga attagaggat 240
ggtggttagta atgaaaatga tgcattcagt ttaacaagtt taatttgaga cagctatggt 300
atagctaaaa acaaaagccc ataaagttgg agatagggac cagagtttaa catagcgatc 360
taggccagaa ttgacaatgt ttaagtaatg gtggaatctg tcaataagac ttcccagagt 420
gttaatatat atcagaaatg caccacaactc gag 453

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<210> 1123

<211> 709

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)

<400> 1123

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gaattcggcc aaagaggcct anccgtagat gatgttccct tctcaatccc tgctgectct 60
gaaattgccg accttagtaa catcatcaat aaactactaa aggacaaaaa tgagttccac 120
aaacatgtgg agtttgattt ccttattaag ggcagtttc tgcgaatgcc cttggacaaa 180
cacatggaaa tggagaacat ctcatcagaa gaagtgtgtg aaatagaata cgtggagaa 240
tatactgcac ccagccaga gcaatgcattg ttccatgatg actggatcag ttcaattaaa 300
ggggcagagg aatggatctt gactggttct tatgataaga cttctcggat ctggtccttg 360
gaaggaaaagt caataatgac aattgtggga catacggatg ttgtaaaaga tgtggcctgg 420
gtgaaaaaag atagtttgtc ctgcttatta ttgagtgtct ctatggatca gactattctc 480
ttatgggagt ggaatgtaga gagaacaaaa gtgaaagccc tacactgctg tagagggtcat 540
gctggaagtg tagattctat agctgttgat ggctcaggaa ctaaattttg cagtggctcc 600
tggtgataaga tgctaaagat ctggtctaca gtccctacag atgaagaaga tgaatggag 660
gagtcacaa atcgaccaag aaagaaacag aagacagaac aggctcgag 709

```

<210> 1124

<211> 135

<212> DNA

<213> Homo sapiens

<400> 1124

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gaattcggcc aaagaggcct agtgggggga ttgcaaatga aggaactttt tacatggatc 60
tttttaattc cagttggttg ggggaggggg gtacttggtt cttgggtcac acaagctcta 120
tcccaacatc tcgag 135

```

<210> 1125

<211> 899

<212> DNA

<213> Homo sapiens

<400> 1125

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gaattcggcc aaagaggcct atcagatttc tagcaaaatt gaacagaaag tatagagtgt 60
acattctgta tctctgacc ccgtacatgc acagcctccc ccactatcag cgtcctcccc 120
cagagtggat ttgttaaaat tgaagaccct aactgatac agcatcatca ccaaaagtcc 180
atagttttca ttagagttaa ttcgtggtgt tgtgcattct atcagtttga caaatatgta 240
atcacatgca tctgccatta tagtgtcaca cagaatagtt ttactattct aaaatcctct 300
gtgccccacc tattcatctc ttctctctc ttaaccctg gcaccactgg tcttttca 360
atcttcacatg ttttaccctt ccagaaatgt cttatagtta gaatcatata gtatgtagcc 420
ttttcagatt ggcttctttg atttagtaat aagcattttat gttttcttca tgtcttttca 480
tggtttgata gctcatttct ttttagtgct gaataataat ttattgtttg catataccaa 540
agtttatcca ttcacctact gagggatcct ttgattgctt caaagtttcg gcaattatga 600
ataaagcttc tgtaaaagatt catatgcaga tttctgtgtg aacacaagtt ttcaacccat 660

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ttgggttaa accaatgaga gtgatagcta gatcattgtg gaaagctttt aaaccacaaa 720
tttagtttct ctaactattc agtttatctg tttctttttt agtgagtttt gggtgtgttt 780
ttcattgagc ctgtgcattt tatctgagtt gttaaattta tteccatgaa gttgttcata 840
atattccctt tttattcttt taatatctat aggatctgtc atgatgtccc gagctcgag 899

<210> 1126

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1126

gaattcggcc aaagaggcct agggaggatc atagctgggg gaggctgagc gtgggagcgg 60
tgctgccagt cctgcctgaa aacgcgaaat gagtcttgct tggttctccc tccactgggc 120
gtgagagccc ctgccaggga ggcccaggac aaatggcccc atagtggaaa ctgggaagct 180
tttagggcatc tgatcagagc gggagccagc cgggggacca cagtgtctga caggccaacc 240
aactcaaaact tgaagacatg aaatcccaaa ggagaaccac tttgtgcctc atgtttattg 300
tgatttattc ttccaaagct gcactgaact ggaattacga gtctactatt catcctttgg 360
aaaaaaaccc tgaagctcag cgaggataag taacttcccc aaggtcacaa agccacagaa 420
gtcttcatga acatgaacca gctcgag 447

<210> 1127

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1127

gaattcggcc aaagaggcct aaacttcgta aaaagctaaa ggcagaaaag aagaaattag 60
ctgctcttat gtcttccccg caaagcagaa cagttcgaag tgaaaatcta gaacaggtgc 120
cccaggatgg gtctccaaat gattgtgaat caatagagga cttgttaa at gagctaccat 180
atccaattga tattgccaat gagtctgcat gcaccactgt tcctgggtgt tccctgtaca 240
gtagtcaaac tcatgaagaa attttagcgg aattattgtc tctacacct gtttcaacag 300
agctgtcaga aaatggggaa ggtgacttta ggtatttggg aatgggagat agtcatatcc 360
caccaccagt accaagtga ttcaatgatg tttccagaa cacacatctg agacaggacc 420
ataattattg tagccccacc ggactcgag 449

<210> 1128

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1128

gaattcgggc caaagaggcc taagattaac tatactattt tcaagggcaa atagttatcc 60
tttatgacat ttctgttttc ctaacaccta acagaaatgt gctcttccat ggaatagata 120
tttaatacat tatttatttg taacattttt agttattttt taaaaaatag atgatttatt 180
tacaagtcag gaaatcctag taaaaatgct cccatccttg tcttcaatct actactcagt 240
ttctaattgt cctctgtgag ataaccactg tactcgag 278

<210> 1129

<211> 305

<212> DNA

<213> Homo sapiens

<400> 1129

gaattcggcc aaagaggcct acacattttg ggccacacac tatgtccatc tttccctctt 60
tggtgatgtt aatttatcac ccaatcaaga tataagtcca tttctccacc gtgtaattgc 120
tgttttattt tttcgttgca actaacaagc agtctgtgac aagatagttc aagaccatct 180
tagcatccag ctgcagaccc acttttgact ctagtataat agatggccac ctgtttgcat 240
gatttcagga gcacaagaaa ggcacaaagc ttctggaata aagatatatc ccctcttccc 300
tcgag 305

<210> 1130
 <211> 385
 <212> DNA
 <213> Homo sapiens

<400> 1130
 gaattcggcc aaagaggcct atccaaggac caccacccgc caccgcccgc cgagcgtact 60
 attgcggccg ccctctgctg cgctgaaga gagaggcgac tctacaagcc ccacagcatg 120
 cactgttact aaaagacga tgcgtccctc tggacctgag atctgtgtga tcgtgggaaa 180
 gcgacgaaaa acgaacaaag gaacagtaaa tggagtaact tggctagaat atggcagtaa 240
 ctacaaggca tgttctgctc tggcacgaag acaaccacc tgaggcacca gacacatgag 300
 tgaagccatc ttggacatcc cagtcacagc caaactcact cctgagtga cctgcatgat 360
 gaaccagca atccccactc tcgag 385

<210> 1131
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1131
 gaattcggcc aaagaggcct aaaagcaggg actaaaagcc ccacttcgtc ttacgttccg 60
 aaaggaaggc gtctgttgag cctttctctc agtcgtgagg gaggcgtcga cggcgtgcgg 120
 aagtcctgag ttgaggcttg cgggacctt tccggagaaa gcgcaggcta aagccgcagg 180
 tgaagatgtc caactacgtg aacgacaagt ggccgggctc gccgcaggag aaggattcgc 240
 cctcgacctc gcggtcgggc gggccagcc ggctgtcgtc gcggtctagg agccgctctt 300
 ttccagaag ctctcggtcc cattcccgcg tctcgag 337

<210> 1132
 <211> 459
 <212> DNA
 <213> Homo sapiens

<400> 1132
 gaattcggcc aaagaggcct aaggaggggc aggagaacac actgggtcca tgcgtgggtgt 60
 gggcaggagc acctttccag cattaggggt gctgggatcc acataggcct gcatgggata 120
 acctggtggg taaccagcaa agggatgatg cggggcatta taaccaagag agtcataggg 180
 cagtggtgat gtcattccca ggttctgcat ctgttctgtg tgtttctgag cctcccgttg 240
 agccacctct tgctcaaaca acttcggcg ttcctctgta gaaagttat tgcggtcttt 300
 aattcgtact ttctttttag aagttgggtg atcatatctg tcatctggcc tttttgttcc 360
 ccgctcatag gcagaagagg gtggtgagag ggagcttctt cgtttccttt tctctttatt 420
 tcgagtttgc ttgtctgggt ctctctctct tccctcgag 459

<210> 1133
 <211> 681
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (154)

<400> 1133
 gaattcggcc aaagaggcct aggccaggga agctatgttg aggagggacc cccccaccac 60
 atttccagca gtggaggggt gatcatttcc cactctgggc agtgggggtg tgggcattctg 120
 tgggcaccca tggaccaagg agctctgccg caanctttgc ttggcccag gccctatgaa 180
 gaagccttga gccctgccag accacctgcc tggttccctg cagtcttccc ccaagcactc 240
 tctgctaagg cagtcacctc cttgataacc cagccctgc tttcccaagg aagtagcctg 300
 ccccgatga ccccgccctc ctccagggcct gggggaaaat gctgaagaca gtgccacgag 360
 gccactctgc caggcgtctc tccctgcat ttccagccc tcccaggctc agccccagag 420
 agttgtttcc accaggggccc tccctggtcct caggccctc ctgtgtcctg cgaagggcct 480

gtcctggaga cagcctgtgc cctccgtcac cacagcctta ggctcaggcc accaggatgt 540
 ttctttggcc tctggcagcc ccagctgggg tgcccttagt ccaccaaca catgcacaac 600
 acacatgtac tcaacacaca catctacata taccacaacac atgtacacaa tacgtacact 660
 caatatacaa cacacctga g 681

<210> 1134
 <211> 299
 <212> DNA
 <213> Homo sapiens

<400> 1134
 gaattcggcc aaagaggcct aggtgggtgt agcagctgaa ggatcttctg tgaggctaac 60
 tgctttccaa ctctcttggt cttacaccac ccgcgcactg tgtgcttgcc acacgccatg 120
 acgtattcac tcttctgggt tttccagga accacttcaa acttgataga cgtgtcaccc 180
 atccccgggt ttcttttaag gcaactcgtgg aggatctgat atggagacaa cagcccagcc 240
 ttgctgggtca gctcgtagac ccgcgagtc ccatgctga tgtgggttaa atactcgag 299

<210> 1135
 <211> 606
 <212> DNA
 <213> Homo sapiens

<400> 1135
 gaattcggcc aaagaggcct cctaaaccgt cgattgaatt ctagacctgc ctcgagcggc 60
 taagtgtatg atcttgtact ccgtgttgca gattactatt tttttacacc atacgtgtat 120
 ccagccacat ggccagaaga tgacatcttc cgacaagcta ttagtcttct gattgtaaca 180
 aatggtgggt cttacatcct ttatttcttc tgtgcaacac tgagctatta tttgtcttc 240
 gatcatgcat taatgaacaa tccacaattt ttaaagaatc aagtcctgag agagattaag 300
 tttactgtcc aggcattgcc atggataagt attcttactg ttgcactgtt cttgctggag 360
 ataagagggt acagcaaatt acatgatgac ctaggagagt ttccatattg attgtttgaa 420
 cttgtcgtta gtataatatt tttctctctt ttcactgaca tgttcatcta ctggattcac 480
 agaggccttc atcatagact ggtatataag cgcctacata aacctcacca tatttggaag 540
 attcctactc catttgcaag tcatgctttt caccctattg atggctttct tcagagtcta 600
 ctcgag 606

<210> 1136
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 1136
 gaattcggcc aaagaggcct agctaggtgg tggcagccag tggctgggtc ttgggcagga 60
 gatccttgtc actcgttatt ttatctctgg taggactgga ataggggctg gggcaggtga 120
 cctggctgaa tgtggaaaag aggactgtgt acagagggtca cccctgtggc tagctgagaa 180
 gagtggaaa gagaggtgaa gtgctaaaac tggggtcggg gagaagcctc aggtatggag 240
 gaggatgggg cctctgcaaa gatgtgggtg ttaacagcca tgaggcttta gagctggaga 300
 gaccctgctt cctgaatggg gtcttgggca gctcccttcc ctgctccgag cctcaatttc 360
 cccatttgta aaataggagg gatgctccct acttcataag gctgcttgtg gggcagaaag 420
 ataaacaggg tcgggggcccc tccaagcggc tgggcgaagt gaactcgag 469

<210> 1137
 <211> 113
 <212> DNA
 <213> Homo sapiens

<400> 1137
 gaattcggcc aaagaggcct acagctacct ttatctctcat ctcccaccgt ctcctttctt 60
 atctggcttt ttctagtttc caactccttc catgaagcat gtcccgcgtc gag 113

<210> 1138

<211> 575
 <212> DNA
 <213> Homo sapiens

<400> 1138
 gaattcggcc aaagaggcct acccagagtg acggcatgtg gaggcgtcaa tgcattctacc 60
 tccagcacac caggcatgat gtcagggtgca gcaggaggta cctggccctt tgctacacag 120
 accacatggt cttgctgggg acaagaccta gggaacagct ctttttgta cagtgtggtt 180
 ggttcctgga gagggagagg gaatagccca cgggctaagc agcccactgc aggtaccta 240
 tgcaaccagg aagggtcaggg aaggagatgg ccagccacgc ggtggagtgt gaacatcatg 300
 tagcagttag ccaggtgaag aggagatgct ggggagacag ggagaggcca ctcttggtg 360
 agggacctgt acctgcaaag actctcaggg gagggaggacg gctttctgtc actgtttctg 420
 tgtgtgaggg aaatcagagg gtaggcccg gctgtccctg cctttcctgt ggggcctgac 480
 tgcacgtacc ccctctcccc aaacctccca ggagttctga gtctctacct ggatcttgat 540
 tccactggca tgaaatctgt gaatctcacc tcgag 575

<210> 1139
 <211> 113
 <212> DNA
 <213> Homo sapiens

<400> 1139
 gaattcggcc aaagaggcct actagaatat taaatatact cagtaaattc tgtgaccttt 60
 gcaaagggtca aataaatttc aaatagttat ttcaaaaaat gggcactctc gag 113

<210> 1140
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 1140
 gaattcggcc aaagaggcct agttgttggg agtggtggtg gtagtggtat gtgtgtgttt 60
 gtgtgtgcaa tgctaagaaa cacacacaca cacacacacg gactcgag 108

<210> 1141
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1141
 gaattcggcc aaagaggcct acgttttctt agtttaaaaa acaagtgaag agagacatta 60
 tttgtgttct cactaaattg cttttttgca tttccatcaa ggcagctagc ttgacagaat 120
 ttactccagg caccgtgcag tgcacacttt tatgtttggg gacaccttc aaattactaa 180
 cttatgggcy aggtgcagtg gctcacgctt gtaatcctcc cagcaccatt ctcgag 236

<210> 1142
 <211> 520
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (56)

<400> 1142
 gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggccnagtg 60
 aagtggacag gttgaggtgg tctttctatt cgtcattcac tcttatttgc aggttctgtt 120
 tcatgtactt ggacgtcttt tagcctctca cactttgaaa ttctagtgtg aaaaagtgc 180
 ctctgaagtc tcacgcactc aactcgtttg acgaactcgt ttgacgtgtt ctctcttgcc 240
 ctttgttgtc tgttgtcttg agtctcatag aatagggttg aacctttcac tgcgggtttt 300

```

gtaggagtca ctgaggatat tgacgaggca agtgacaggg tcgacactct tctagagagg 360
ctgtatatga accaggtgtc tgaaggatta gaggctgggg aaagagctgg aaagcagtta 420
gtaggctagg gtatttgtgc gtgagggtgag gagactcaga gctaggggag acattagagc 480
aggggttggc aaacattttt tgtaaagggc cgtactcgag 520

```

```

<210> 1143
<211> 706
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (28)

```

```

<220>
<221> unsure
<222> (396)

```

```

<400> 1143
gaattcggcc aaagaggcct aagatcancg tgcgggggtgt gaagataggg gtcaaggccg 60
atgactccca ggaggccaag gtgacttctt ccaaccacgc cccttccttc catggcccca 120
agctctcccc caagacttgc gatgaagagg ccatctcctg tcaccctcac tgcaggccag 180
gtgaccgccc tcttctctct tttctccctc ctgtagggga ataaatgtag ccactttttc 240
cagttaaaaa acatctcttt ctgcggatat catccaaaga acaacaagta agtgggggtg 300
ggatggcagt ggaggaggca cgggtgggtc gcagccttga ggtgggtggg tgtgggcca 360
gcccccgctc cagcacagac agacctgtcc ctgcangtac tttgggttca tcaccaagca 420
ccccgcgcac caccggtttg cctgccacgt ctttgtgtct gaagactcca ccaaagccct 480
ggcagagtcc gtgggggagag cattccagca gttctacaag cagtttgtgg agtacacctg 540
ccccacagaa gatattctac tggagtagct gtgcagcccc gccctctgcy tccccagcc 600
ctcaggccag tgccaggaca gctggctgct gacaggatgt ggcactgctt gaggaggggc 660
acctgccacc gccagaggac aaggaagtgg gacggccgaa ctcgag 706

```

```

<210> 1144
<211> 290
<212> DNA
<213> Homo sapiens

```

```

<400> 1144
gaattcggcc aaagaggcct acgagaatgt ggggcacgaa ggttgagctt ggtgatgtgg 60
tgactataat aacctctctg gttgtgtgtt ttgtgtctct tgttgatggt ttagtgaagg 120
ttatttttac aggagacatg tgggggtgta aggagtggc aatgctctgc atgatgttgc 180
tcattctggg actaccactc acaggcacag tgatcgtctt tgagactgga acaacggcct 240
ttggaacttc ctttagaaca acaggagagg agctggagag gcagctcgag 290

```

```

<210> 1145
<211> 146
<212> DNA
<213> Homo sapiens

```

```

<400> 1145
gaattcggcc aaagaggcct acgagggtag ggaaataaga actacagaga gctcaagaac 60
aattaggcaa ggagatgaga atgaatatgg aaaatctagt taggaatgaa gatattctac 120
attcagagga agcaacgtcc ctcgag 146

```

```

<210> 1146
<211> 721
<212> DNA
<213> Homo sapiens

```

```

<220>

```

<221> unsure

<222> (9)

<400> 1146

```

gaattcggnc aaagaggcct aggccttttc agggtagcag tttattattt atttccatac 60
tttgtgtttt atcccatcaa tctgctcttc caatttggct tagagttata gaatgttcga 120
gctggagaaa ccacatttcc tgagaaacat tttatataaa ttctgataac agttgatatga 180
acttctattt cttcaagaat catgataagc tttatcatat aggtcccaag aaaaatctag 240
gtacagtaac aactggagac caggaatatt tttctaaaata tttcttgcat tgtactttta 300
taatgagtct tttttcaatt aaagtgaata gcatcaaagc atgatatgatt tttttacctg 360
agaaaatggc cttttcattt atatttgaat aaaaattcaa attttaaact tcaccataaa 420
agtcagtaat gttgacaact tgtcagcacc tacttcatag attgataccc acactataat 480
rtagaatgtg gaagttaaaa tagtatctac accctgaata ataaataaca tgcactaaag 540
acttttcttt tatggaactc tattagtgtc cttcctaaaa ataaaatgaa atgaactttc 600
ctaaagtgtg gtaatattag tactatctaa gtcacatccc tggccttatg aaatattggc 660
attttctact ggtgtaactt ttattagaag catctcatca taactagtag gattttctga 720
g 721

```

<210> 1147

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1147

```

gaattcggcc aaagaggcct agtgtgaagt ggttggcgtc ggccgcagat gaccacaccg 60
tgaagctctg ggatctcact gccggcaaga tgatgtctga gtccctcggg cacacggggc 120
ctgtcaacgt ggtcgagttt caccacaacg agtacctcct ggccctccggc agctctgaca 180
ggacaatccg cttctgggac ctggagaagt tccaggtggt gagctgcac gaaggggagc 240
ctggggcccg caggagcgtc ctcttcaacc cagatggctg ctgcctgtac agcggctgcc 300
aggactcact gcgtgtctac ggctgggaac ctgagcgggt ctttgatgtg gtccctcgta 360
actggggcaa ggtggccgac ctggccatct gcaatgacca gttgataggt gtggccttct 420
cccagagcaa cgtctcctcc tacgtggtgg atctgacgcg tgccaccagg actggcacgg 480
tggcccgga cctgtgtcag gaccacgggc ccctggcaca gccactgccc aaccccagcg 540
ccccctccg gcacaatctc gag 563

```

<210> 1148

<211> 199

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (72)

<400> 1148

```

gaattcggcc aaagaggcct atctatgtaa agtgatactt ctttctgtac aagaaatatt 60
acttctccct cccccacc caccaaagaaa aagttaaaaa ccagtattcc ttcaaagtca 120
tggggatacc attggcattt tgaatgggac agttcccttg gcagtggaac tctactgctt 180
atctctggcc caactcgag 199

```

<210> 1149

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1149

```

gaattcggcc aaagaggcct acattattct tattcttaca ttcatgtgt ctgcatttga 60
ctgctacccc tatgtcattc tcaactcaaa tcatggtttg ttccactccc acatggctac 120
ctagagggca aattcctaaa tactgccaga gaaaataaga atagagtgc aataatcccc 180
ttttgtttca gctttacata tgttctcgtc agtctttgca aatactgtga tgctctataa 240

```


gatggggaaa tagaaggttag tgaattttctt tagaatatca gtaagtaaat aattgctttt 300
ccaactgtca acactcgag 319

<210> 1150
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (82)

<400> 1150
gaattcggcc aaagaggcct agccccctac tctcatgttg ctcttttctc tctcctcctcg 60
tctttctctt tttatctctt tnatcttatct catccagcgg ttggcaaacc tttcctttct 120
tagctctgtg tccgccagcc tcttttgctt ctcggacagc aagctcttct cagggccacc 180
gtttctctct ctgctattct tttctcacgg agagtggag ctctcatggt gcttccagaa 240
gcaattctgt tctctctctt tggggctgag ctcttctctt caatcctggt tccatgatgc 300
agaagaggca ctcgag 316

<210> 1151
<211> 544
<212> DNA
<213> Homo sapiens

<400> 1151
gaattcggcc aaagaggcct acagagtaaa agtggtttatc aaaaagctct ttaaaatatg 60
tatgctgttt gaactagcag ttccgctttt aggaatctat cctggggcaa aagaaataga 120
tcagtgggtt aagattaagt tataatagca aaggaaaaaa ggactaaact caaatgtgca 180
gcaaaaggag acttactgat aactcacagt tcatttctat aacagcataa tatacagctg 240
ttaaaaatta tgtagcaccg taccaaattg tatggaaata ggtttggtga attgctaaat 300
agataaaaaa tttaaatgaa actaaataat atgttttagca tgattccagt tttgaaaaaa 360
aaaaacgaat gtagataaaa tgagtagagg aatatacact aaaattatta tggtagttat 420
ctttggatgg taggatttaa atacttttcc ttttttctt gataccatc tgtattttcc 480
aaatctacac taaaaacaag ttttgacaaa aataattcat tctttaagga aaaaagcact 540
cgag 544

<210> 1152
<211> 682
<212> DNA
<213> Homo sapiens

<400> 1152
gaattcggcc aaagaggcct aactgggtcc tttattttta tgtttattta tttgggacgg 60
ggtctggctc tgtcaccag gctggagtgc agtgggtgcaa tcaactgtca ctgcagcatc 120
cacctccag cgtccacca tctcctggc ctcagcctcc ggaacagctg gggtagaggt 180
acgccccagc ccgaacaggt tttcactagg ttgcctgggc tctttcttct tttgtctgtg 240
tttgtttgtt ggttgggttg ttggttggtt ggtttttgtt tgtttgttct gagacggggc 300
tccggtctg ccgcccggg ctgcagtga atggcgcgat ctcacctcac tgcggccttc 360
tgggtcaag cgatcctccc actgtgccg gctgaagac agcctttaga gaaagaagca 420
gggggagtcc ttccaggag agacaagatt tctggagtgt ggaaagggtg agagactggg 480
tcagcgaaaag gaacattccg gtctttatgt tgggatgcaa cgtatagata cagggatgag 540
acccaaaaga gccggcagag gtttgtcatc gtgctcgcaa ggcaactgcc ggtggctgat 600
cccgtaaaag atacacata ctagagcgga gcctaaagat gcattccagca tgacgggtgg 660
agccacgatg cttggactcg ag 682

<210> 1153
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1153

gaattcggcc aaagaggcct acaaacattc caagattatt atatttttga aatttgggga 60
 ttgttttgaa gttgataaaa ttttcatac tagcaattta ttgagaagtt gaaagaaaaa 120
 catgatgctc actttaagaa caagtatagg ccgggcactc gag 163

<210> 1154

<211> 116

<212> DNA

<213> Homo sapiens

<400> 1154

gaattcggcc aaagaggcct agtcattgat actattttaa agaagggatt tcttctctca 60
 atttggagaa catgacatat aagggaaaaa gtctaaatgc ctccacctgc ctcgag 116

<210> 1155

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1155

gaattcggcc aaagtcgagt tttccttgaa aaataaaaga tattgcaccc atgaaataag 60
 aagagatgag gataatgcta tttctctccc tctttagttt ttgggtttgt ttctttgctt 120
 gtttaagaca tacagtttca cgtttctctg ag 152

<210> 1156

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1156

gaattcggcc aaagaggcct agctacgcta aaaaataccg agaagatata tggagttgct 60
 gtttacactg gaatggaaac caaaatggct ttgaactacc aagggaaatc tcagaaacgt 120
 tctgctgttg aaaaatctat taatgcttcc ctgattgtat atttatttat cttactgacc 180
 aaagctgcag tatgcactac tctaaagtat gtttggcaaa gtaecccata caatgatgaa 240
 ccttggtata accaaaagac tcagaatgag ctcgag 276

<210> 1157

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1157

gaattcggcc aaagaggcct aagcgaatct tctgcaggcc cttggcaaac tccatctcca 60
 gcgtcgctcg cttctccagg tagctgatga ggtccttcac gtacttggcc atgttcttgg 120
 catacagcag tgcggcatcc acgccccctt cacagcgtcg tagcagcacg tccacctcct 180
 cggcgggcag gcagccggcg tcacagtcac ccaggctggg aggcgtgccc tcaactgccc 240
 gtccatacag gctttccatg gactggctcg ag 272

<210> 1158

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1158

gaattcggcc aaagaggcct agtttctgag tgcgaagtac caattaaggt gtcttaaatt 60
 tggcgcatag aggagagaag gaaacctgag gactagtgtt cctcctgaat gaaggttcag 120
 gtcaccagcc ttctgtacac tgccttttgg tttagcagtt ctttgaaaag caaacacttt 180
 catgtcctgt ctattcatc agctggctgt gctgtgctgt ggaccagctg tgtggatctc 240
 tagcccagct acagcagaat acattttacc agcaaacta aggatgacaa acacccgact 300
 cgag 304

<210> 1159

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1159

```

gaattcggcc aaagagccta tttaaacagt caagtaaaat caagctgggt aatcatggca 60
gaaggtggat ttgatccctg tgaatgtgtt tgctctcatg aacatgcaat gagaagactg 120
atcaatctgt tacggcagtc ccagtcctac tgcacagaca cagagtgtct tcaggaatta 180
ccgggaccct ctgggtataa tggcatcagt gttacaatga tcttggtagc ctggatgggt 240
attgcattga tcttgttctt actgagacct cctaatactaa gaggatccac cctcgag 297

```

<210> 1160

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1160

```

gaattcggcc aaagaggcct aataaaattg agcaagtaaa gtttgggttt taattttcct 60
ttgcttgaac caagatagga aattacttaa gagttttttt tttttttttt tttttttttt 120
ttaggaatga aaggtcataa gccattagaa atagtggcat tattatgcaa taacaacacc 180
ctagctaacc tgcttttgtc atctgtagca cttacaataa agaatgatga ccttccaacc 240
ctggacacta cctcgataaa gcaaaccaga gatcttcgag 279

```

<210> 1161

<211> 258

<212> DNA

<213> Homo sapiens

<400> 1161

```

gaattcggcc aaagaggcct agattgcttg agcccacaag ttggagactt cagtgaactg 60
ttgatcgcgt gccactgcac tacagcctgg ctgacagagc aagatcctgt ctcaaacaga 120
caggcaaaca attaactaga gttggagccc taccttacac cgtgtggaaa cacaaattac 180
aaggagagtc ttagatcaaa gctttaaact ttatagaata aaatataaaa gatgatgact 240
ttgggctggg tcctcgag 258

```

<210> 1162

<211> 452

<212> DNA

<213> Homo sapiens

<400> 1162

```

gaattcggcc aaagaggcct aatacatccc acattttgtt gttataacag ttagtagtta 60
gtattgcttt catatataga ctccagaatc taaattttac gataatgaca tttcttctgg 120
tcattgacaaa tgtaatatatt tacaatatata aatctacgta gaatccaaag acacacacgg 180
agcagtcctg tctgagaaat aaaaaatcag gacacccatg gcacgttagt agcccctcgc 240
gtccagcagg tggcgaaggg aggtgaggtt tatttattaa atgggaccga gtgggacggg 300
gacggggcag ccctaagggg aggggaagcat tgtcaatttc tggggataga atgagaccca 360
ggcatagctg gagtttgaag ctttgaagca aaaatatctg tagaacatct taaacgtgac 420
caaaatatga tgttaaaatc agcaatctcg ag 452

```

<210> 1163

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1163

```

gaattcggcc aaagaggcct agggattttc aggtgttttc atttggtgat caggactgaa 60
cagagagaac tcacatgga gtttgggctg agctggcttt ttcttgtggc tatttttaaa 120
ggtgtccagt gtgaggtgca attgttggag tctgggggag ggttgggtaca gcctgggggg 180

```

tccctgagac tctcctgtga agcctctgga ttcaccttta gtagttatga catgagctgg 240
gtccgccagg ctccagggaa ggggctggag tgggtctcag caatcagggg gagcctcgag 300

<210> 1164
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1164
gaattcggcc aaagaggcct atgcttgtat aggaataaag acaaagtcac ataaaaaat 60
ggggaaaatt gaacactact caccatagat cctgagtatt ttaaagagcc ttcgtagagc 120
attcaaaatc gggtaagaaa aatggggaaa aataaaatta cttaatcttt aaaaggaaga 180
caagcgtatg ctacaccta atggacttata taatcaggct tgctctagct tatccagaat 240
cagagtacag gccgggcgca gtggctcatg cctgtaatcc cagcactttg cctaaaccgt 300
cgattgaatt ctgacactgc ctcgag 326

<210> 1165
<211> 285
<212> DNA
<213> Homo sapiens

<400> 1165
gaattcggcc aaagaggcct actcctgcac aagaacatga aatacctgtg gttcttccctc 60
ctcctggttg cagccccag atgggtcctg tcccagggtg ggttacaaca gtggggcgca 120
ggacttttga agccttcgga gaccctgtcc ctacactgag ctgtctatga taagtccctc 180
agtgggttact attggagttg gttccgccag tccccggga aggggctaga gtggattgga 240
gaaatcaatc agagtggaaa caccaactac aaccctgcc tcgag 285

<210> 1166
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1166
gaattcggcc aaagaggcct acataattta accattcccc tgtgttgga agaaatacc 60
aaacctttcc taataatcag tattgcaatg accattataa caccctcatt tttttttttt 120
tttttttttt taacattttt ttgtatttac tttatggagc ggctgtgtgt ccagcatgtc 180
cgacctctct cctcggttct gggctcgggt ggggggttccc ttggcaaaact gcaggccctc 240
ggctgggaag cccctgctgc cagcgccggc agcctcgag 279

<210> 1167
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1167
gaattcggcc aaagaggcct aagcaggcta accgtggaca agagcagggt gcaggagggg 60
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 120
ctctccctgt ctctgggtaa atgagtgcca gggccggcaa gccccgctc cccgggtctc 180
cggggtcgcg cgaggatgct tggcacgtac cccgtctaca tacttcccag gcaccagca 240
tggaataaaa gcaccacca acactcgag 269

<210> 1168
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1168
gaattcggcc aaagaggcct acggtatttg gctgttgcct accctttgaa gttttttttc 60
ctaaggacaa gaagatttgc actcatggct agcctgtcca tctggatatt ggaaccatc 120

ttcaatgctg tcatgttctg ggaagatgaa acagttgttg aatattgcga tgccgaaaag 180
 tctaatttta ctttatgcta tgacaaatcac cctttagaga aatggcaaat caacctcaac 240
 ttgttcagga cgtgtacgaa gctcgag 267

<210> 1169
 <211> 414
 <212> DNA
 <213> Homo sapiens

<400> 1169
 gaattcggcc aaagaggcct aatgccttcc tggaaatttt catttgcctc tattectatt 60
 gtattatttg ggttctttcc atatttgttt gttcaagatt ctctcatcat taaaaacaaa 120
 taaacaaaaa cctctactta accctctcca tcccattact gctctacttc tcttcttcca 180
 taaccaagta ttatctacat gcattgtctt cacatcctgt tattaattcc ccaatgcatt 240
 aaattctggc tcatcgctct actacttctc gctgccattg aagctcctct ttccagagtc 300
 actggttact tctatttctg gaaatcagta ggaagctttt cagtcctcag cctactggac 360
 ctctcagcag ctctggccaa tgctgaccac tcccccaatc cagaaacact cgag 414

<210> 1170
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 1170
 gaattcggcc aaagagccta gtgtcttctc cagatgctgc atcagctgct gcacccagag 60
 ctcccttggg tctgcacata gctctgcctg agagcgcttg cggggcaaga acaggatagc 120
 tgggatggag cagcctaagc ttggttcttg ctcccggtag ctgcggacaa ccttggcggg 180
 aatcttctct tggctgtact tgaggcaaca gtcctgagcc cctccatcac tgcttgggt 240
 cctggggatg ccaaaggcca gaaccaggat aaggaggctc agagccagtg actgagccat 300
 gtctgtggtg gagggctgag aagaggccag agctgagggt gaggtgggca gctgcaagtt 360
 gggggtctcg ag 372

<210> 1171
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1171
 gaattcggcc aaagaggcct agtttttttg tggttttgtt gttgtacatg ttatagttgt 60
 tacaaactca acaatacatt actacaatta ttacttttac atcattttaa gaaaatgaac 120
 aaaggaaagc aaatatatat ttgtagctct tggttatagta acctatttta tcatctcagg 180
 ttgtttgttt attttctctg tggattcatt accatctgga gtaattttgt tttctttttc 240
 tttctttttt ttttttttgg agggataaca gggctcttgc ctgttgccca ggctgctgga 300
 gtgcagtgtc atgaatacat ctactcgag 330

<210> 1172
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 1172
 gaattcggcc aaagaggcct agtttttttt ttatatattc tggatattaa ttatacgtat 60
 gtttttgcata ttttttttct atttcataag ttgccttttc actctgttgt ttcctttgtg 120
 gtacagaaat tttaaagttt gatgtagctc tatttgttta tttttgcttt tgttgcctgt 180
 gtttttctgt catattcaag aaatcatcac caaattcaat gtttaggaagc tttttttatt 240
 tttattttta ttttttaata gagacagggt ctgaggctgg tctcgaactt ctgggctcaa 300
 gtgattctcc taccttggcc tccccaaagt ctgagattac aggtgtcaag ctcgag 356

<210> 1173
 <211> 297

<212> DNA

<213> Homo sapiens

<400> 1173

```

gaattcggcc aaagaggcct ataggcctct tcggccggcc aaagaggcct attcaaattg 60
tgtttttaac ctttttagtat ttcttggttaa attttctttt aagggtggatt tgacgtacta 120
aataatacaa attgataaat aggttttttag taacgtactg taaagtgtag gcagagagaa 180
gcattctgta gtcttatagt taggtctctg acgtctggta agcctatgcc cctgaactgt 240
aaacttcacc agtgcttctt agaccgtcct cttgtagaaa caggtaactg cctcgag 297

```

<210> 1174

<211> 259

<212> DNA

<213> Homo sapiens

<400> 1174

```

gaattcggcc aaagaggcct aattttattg caagtaaatg tatttcaaaa tttgttattg 60
gttttgtagt agattattct cagcctactt cattatcaag ctatattatt ttattaatgt 120
agtttgatga tcttacagca aagctgaaaag ctgtatcttc aaaatatgtc tatttgacta 180
aaaagaagtt attcaacagg agttattatc tatgaaaaaa atacaacagg aatataaaaa 240
acctgaagag gatctcgag 259

```

<210> 1175

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1175

```

gaattcggcg ccgcgtcgac gagggggttta tctcctccaa aaaaaaaaaa aagggtgcttt 60
aagtaataat tgagttgcta taaatttggg tataaattca aattttaatt gatttgcatt 120
ttacaaagca cgaagaaaat ttgtcattaa aaaatggtaa tacatttcac aaacatttat 180
tttataacat tatacctttc caatgtagct ttttggttgt tccctttttt tgtttggttg 240
tttgtgacca agtcttgctg tcacccaggc tggagtgcag tgggtgtgtg tcacgggtca 300
ctacagcctt cacctcccag gcccaagcaa tcttcccaac tcgag 345

```

<210> 1176

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1176

```

gaattcggcc aaagaggcct agtggttttt ttagaaaaaa atgcttttga gaaatggatt 60
cattacaggg aaattatcaa agtccagttt cccaaagctt ccggattata aacatctaca 120
tattcagttc tatacatgta ataaacatcg tggtcacata actcttgcac tattttttgc 180
tttgacaaa aaaagtagta aacaggatta tatctttagt tcatgtacta aatgacagcg 240
tctcacactc tcagatccag ctgcatctcg ag 272

```

<210> 1177

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1177

```

gaattcggcc aaagaggcct atcgagtggg gtgcagaggg aagctggggc cttgggggtcc 60
ccagggggcat ggggagggaa ataaataata aacaccatgg gggataagga gccaggagga 120
atgggggtgt gaatggggag gtgctcgatg cttatttgtg gcactaaagg tcttgcaaga 180
tgccccctga ctggggggcg tgtccatgaa ttctcgag 218

```

<210> 1178

<211> 728

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (72)

<400> 1178
gaattcggcc aaagaggccn aggtaccact ttttaaagct agctgtgtcg agttaaagaa 60
aaaatcagca gntttttctc ccagaaatgt aattgccaaa cactattcat ccccatctta 120
agttttacaa ggtgatgtaa tcagcttggt gtagtgatgc tggccaaatg gtgtcagca 180
ggtgagaaca aaaaaacccc agatttcagt gaactaatat acagcttgag cgtttccatg 240
tgctaattgt gcacacttac taaaaaactt tggaaatgga aaataatgta ttagtgcaac 300
agttgatgtg cttctttggg caaagatata gttttgttcc acaatttgta cttaaaagcg 360
aaagaacatt gaaacatag acttactggc tgtagcaatg ctggcctgtt aactgataac 420
tagaaccttag gttcacgttt atgtaaagtg tgtaaaacct agtagagctt gcatagtcgg 480
cactcagtaa atgtttggtt ccttttgccc cttggtaagt ttattttacc atcctccac 540
ctgccattct gactttatta aatcaacatg tggaccagag tgtaaatgag atgttattgc 600
agaagagatt gagaaaattg gtatatcatg cagataacat acaaaatctt tttgtaacgt 660
aaaaaatgca gttttattat tgcttgtgcc tcaactgttt aagtgaatat taaagggtt 720
atctcgag 728

<210> 1179
<211> 500
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcggcc aaagaggcct aaaaaagaaa ggaagacaaa aatagaaaga gagcgtaagg 60
gcaatacata gacaatagta ataaatatga tagatattat taaccagggt attttaataa 120
tcatttttaac tgtgaatggt cgaaataaac caattaaaag atggagattg tcagagtgc 180
tctaaaaaca aaacccaact gtatatatttc cacaagataa ccactttaaa tagaaagact 240
catatagatt aaacytaaaag gaatggagga aaatatacca tgctaacct aataaaaaga 300
aagcggaaga atagatgaat ccactgttag agttgaagac ttcaacatct ctctagaaat 360
tgacagatgc agcagccgga aaattggtaa agacataatt gaacttaaca gcaccatccg 420
tcaactggat ataattgaca tctatgaact gttcatcca gcaatagcag attactaatt 480
cttctcaagc tcaactcgag 500

<210> 1180
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1180
gaattcgcgg ccgcgtcgac agcacatgca tctcccacag cctctgccgc gggtagcatg 60
aagatctctg cagctgccct caccatcatc ctactgcag ccgccctctg ccccccgca 120
cctgcctcac catatggctc ggacaccact ccctgctgct ttgectaccc cctcgag 177

<210> 1181
<211> 704
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (26)

<400> 1181

```

gaattcggcc aaagaggcct agaacngagc ttgctgtcta cctatgaact cccatcttgt 60
taccacaaca aagacctaac tagcatttat gacataaagc catttccaaa aatcacagat 120
actaaaaaga cagaagattt atactggaga cagcagtcac taaaaaccca acccacacct 180
tactgtaaac cagaccactg gattcactat gaaaatctta aatctcccc acgtgatcag 240
tataatatgt gtccagaccc tgttagcctt agtaaaccta gtgttttaca aaataaaca 300
gacacggaag ctttcacttt agaacatttt ttaagtaagc cagaagaaga gttgttcttg 360
aatatggaaa acaatgaaga aacaagacct gttcttgggt ggattcctag agctggagt 420
accaaacctc agaccaacct gctggagctt aagaactctt tttcaaaaac tgggtgcaca 480
aagcgtttcc ataatcaat tctagaagac cataaagacc tcagggataa tgagcattcg 540
gggatgaagc accaattcta tggccataat tcttattatt tctataattg agatactcat 600
tcttcccttc aaaacccagc ctcttgcaag aagctaaaaa atataacaga atttccctcg 660
tattgctgga ttctgttttc tagattaaac cacaaggact cgag 704

```

<210> 1182

<211> 863

<212> DNA

<213> Homo sapiens

<400> 1182

```

gaattcggcc aaagaggcct acctaagacc cccagattta gcagcagcaa ccagtgggga 60
tctgggctac ctgggcacaa gaactcctct aaaaatacaa agccaaaacc aatcccatgt 120
gcacatttca aacatacgat ttgcactcaa atcaagtgat tcttgaattt catcaagcag 180
ctgaaaggcc tacaatttcc aaatatttta cataacagtc tagtgaccaa agctagcttc 240
tcattatata gtctatttgg tttatcctaa gtactctaac cacatcacct ggtggccctg 300
aaaggctgtt ttggctgaaa aaaatgtgac agaggccagc agatgctttg gaaagcagga 360
ctctagatgt gaatttgtgc tcagagctct gtacaaaact ctcaatatga gaaccacaa 420
aagcagagtt agaatagcta catttttagg tcccataaa caaacatata attttgcaa 480
gtgatgggaa agtaatttca aaagaagcaa tgggtacaaga tggctcaatt gatctagccc 540
cacacagact tcagacagca atgcctgatt cagcaaacca ggtaggggtg tgacattctt 600
taaggctgag gagtggcagg agcagcttgc atcagtcatac tggaaacata actgggtctt 660
caaccatccc tgaacactca gctctgtccc cacaggagga caccagggac ttgtgctgaa 720
atcctcatca agcccttttg tgcgtgtcct tctcatata tctgagccct gcagaaacac 780
attcctgccc agctgccacc tgcattgtgt ctgtaccact cttctctgtg tttgcatctg 840
tgggtcttga cacccttctc gag 863

```

<210> 1183

<211> 652

<212> DNA

<213> Homo sapiens

<400> 1183

```

gaattcggcc aaagaggcct actcctggcg atggtgggcg cgttctttgc cctcttcccg 60
gtctgccttg tcataccgcg ggtcccgatc ccgttccctg tctcgtcttc tctctctgtc 120
taccttgta tagccacgct ctgcagcctt gtcagacttg tctggtcccc ggtctgactt 180
gtcgtggccc ctgtctagtt tctcatggct gcggtccgac ttgtcatggc cctgttccga 240
cttgtcatgg ctccggtcca acttttcttc agcatctgca ttactgcttc tgagcttctt 300
ggccgatttg gtaaccacgg agttggggtc atgtggggag agccaggata caaggtctgt 360
gtctgcattc cagtagtaag ggagcccgcg ggaagggtcg aacaccttgt accagcttgg 420
tggtaggccc tccaacctgg tggcctcgta gtccacagga tcatcgctat agtcctcggc 480
aatgatctct tctctgtgtt caggctccag atgtttgagg atgcctctct tggccaagcg 540
ggtctgcagc gcaacgggca gcggcatagc tgatagcaga cagacctggg cccacacgac 600
tctcttccca aaacaccgaa tgagaccttc tctcaacgag gccttcactc cg 652

```

<210> 1184

<211> 126

<212> DNA

<213> Homo sapiens

<400> 1184

gaattcggcc aaagaggcct agtgaagtgg accaaagtct atggaagtgt ttgctgcact 60
 ttggactaaa ataaagaggg cctgtaagggt gttttagaaa cttgtccttc atccacagat 120
 ctcgag 126

<210> 1185
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 1185
 gaattcggcc aaagaggcct aggcagagcc aggttcatac atggaaaagg cctggcgatc 60
 cctgcggtgt gtgtcccg cttggcgccat ggggtgtgtgt tccgcccgtt cactggggag 120
 tggagggtgtg ggcaccggcc ctggaggctg ccggagctgc aggttctccg cctgcagctt 180
 gtggatctct cgtgcagcc tccggagctc gtcgctcagg ctactgttga ccttcatgag 240
 ctgctgcacc ttgtcctccg atgtagccag ggccttcttc agtcccagg actcctgcag 300
 cgtcacagcc ccgtcagaca agtccgagga gtccatgctc cgggcccgggt tgctccgagt 360
 ggcgcggtg ctgcgcagg gctcctggtc tgtgtcctcg tcagaggcca cgctgtcgta 420
 gtcgtgttgg tcgtcgagg cactctggct ccgcagagac agctcgag 468

<210> 1186
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (116)

<220>
 <221> unsure
 <222> (125)

<220>
 <221> unsure
 <222> (147)

<400> 1186
 gaattcggcc aaagaggcct acacaggcag acatactcac agagacacac acagacacac 60
 acaaacagaa actcacacac acaatcacac agagacacac atgcagacac acatanacat 120
 acacngacac atagagagac acacgngac acacacacac agagacatgc acacacagag 180
 atacatgcag atacacacag agacacaggc agacacacac acagacccgg acacagacac 240
 acacatgcag acatactcac agagacacac acagacacat acaaacagaa actcacacac 300
 acaatcacac agagacacac gtctcgag 328

<210> 1187
 <211> 488
 <212> DNA
 <213> Homo sapiens

<400> 1187
 gaattcggcc aaagaggcct agggaaaaag tacaaaactt ttttggattt tgtacacata 60
 gttttggaaa gcttaggaat gtgaagtcaa caatatacct ttaaaatatac aaattataag 120
 gcaataacaa tttttttcaa accttaaaat gttccaagaa aaatgactaa gaatgatttt 180
 tttccatcca gtatatgtc taaaaataag gacaaactat aatagaagta acgatttttg 240
 gtacacatgt ttaaaaaaat gtccatgtca ataaacaatt tcaattaatc aataaactta 300
 aaacaacat taaatgtaatt ttgcattttt gtatcagatc catacaatct caaatatcaa 360
 gattttctta agctcaatgc taaatgaccg gatattctatc attgtggaga aacagagttt 420
 gatcttaggc agacgaaagg aaaagaaagg cacacaccta gaagaatcac atgagtctca 480
 ttctcgag 488

<210> 1188

<211> 473

<212> DNA

<213> Homo sapiens

<400> 1188

```

gaattcggcc aaagaggcct atgctgacct agtgccggag acggctcctgc tgctgccgca 60
gtcctgccag ctgtccgacg atgtcgctcc acctagtcga gccgccgccg cccctgcaca 120
acaacaacaa caactgcgag gaaaatgagc agtctctgcc cccgccggcc ggcctcaaca 180
gttcctgggt ggagctaccc atgaacagca gcaatggcaa tgataatggc aatgggaaaa 240
atggggggct ggaacacgta ccctcctcat cctccatcca caatggagac atggagaaga 300
ttcttttggg tgcacaacat gaatcaggac agagtagttc cagaggcagt tctcactgtg 360
acagcccttc gccacaagaa gatgggcaga tcatgtttga tgtggaaatg cacaccagca 420
gggaccatag ctctcagtcg gaagaagaag ttgtagaaga agagctactc gag 473

```

<210> 1189

<211> 429

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (145)

<220>

<221> unsure

<222> (196)

<400> 1189

```

gaattcggcc gaagaggcct aggggtgggt tgtagtctta ggggtggctg gtttgaaga 60
aagaccacca actgcttccg tttgctcagt gcctggctca gcataaactg atggaaactg 120
gggtgggtttg tcactatatt ctgttctggc tacattgtcc tcgtctgtgt cggtagatct 180
ttccatctcg gtaggnactt tagattctac agatgttttt cctggttctt ttaaaccattc 240
caatttcttc tgtgggtgtcg ttccttctga ccatttctct actttaatct gatgaaattg 300
tttaaccaga tcttttatat ccatagtagt attccctcta tacatagtaa gttcttgaaa 360
ataagctgct gcaaactggt tgatgtttga tgggttggtt ttgagaacag ctctgctaata 420
tccctcgag 429

```

<210> 1190

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1190

```

gaattcggcg ccgcgtcgac atgggctgtg ccttcatcaa cctctgcac ttggcttcac 60
agcatgcttg ggctcagctc acattctggg aggccagcca gctttacctg ctgttcttga 120
gccttaacgt gccactgtc aacgccgct ggctggaacc ccgcaccaca gctgccatgt 180
gggccctgca aaccgtggag aaggagcgag gcctgggtgg ggaggtacca ggcacgctcg 240
ag 242

```

<210> 1191

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1191

```

gaattcggcg ccgcgtcgac atgaaagcgg ggaaatgtgt gtccccact gtgctgataa 60
atgtgtccat ggctcgtgta ttgctccaaa cacctgtcag tgtgagcctg gctggggagg 120
gaccaactgc tccagtgcct gcgatggtga tcaactgggt cccactgca ccagccggtg 180
ccagtgcata aatggggctc tgtgcaaccc catcaccgga gcttctcgag 230

```

<210> 1192
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 1192
 gaattcgcgg ccgcgtcgac tgctgcccac agacctgcgc tgccactgcc atcgccatcc 60
 atcgcatccc accgacagac tgctgcttct agtgatctgt actcacctcg gaggtatctg 120
 ggctggacac agcccctgga caatgatcca gacagctggc tgcccctcaa gggacctgtt 180
 accttcagcg agaccattt cctccccatc cctcgag 217

<210> 1193
 <211> 244
 <212> DNA
 <213> Homo sapiens

<400> 1193
 gaattcgcgg ccgcgtcgac cccactcccc ttccccatc tctcactgtt ttgtgtacac 60
 actgtgcaca cactacctgt gctccctgcc ccacatgctt gcacactgct tgctcctcct 120
 gcagggactc tcctctccct tccacatgcc cgcagcttct cttccaacct cagtctcaac 180
 agctcttctt caccagctga cagcccgagg ccattgcccag cattcctctc ccctagcgtt 240
 cgag 244

<210> 1194
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1194
 gaattcgcgg ccgcgtcgac gaaagtcatt tataacccca aatgttcac atactcatct 60
 ctatgtatat gctcatctct atgtatatgc cctatgtcac tcaggaaaac attagtttac 120
 taaccatctc tcatttaaaa acaaaacct ttgggccagg cgcggtggcc tacgcctcgc 180
 gtcccagcac cttgggagge ccaggcgagg agatcatccg aggtcaggag ctcgag 236

<210> 1195
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 1195
 gaattcgcgg ccgcgtcgac ctgcctgttc tgtatccac tcaaggccct caggcatccc 60
 acgttcacaca ttctgaaat ggccctgtct cccctcacc acagcctgct cctcagcatg 120
 gcagtcactg tctccacca gcttttctgt caggttcctt ggggtcctgc acaagtccgt 180
 ctctgccaca tcccacgtca cccgcgtccc acgtcaccac cgctccctcg. g 231

<210> 1196
 <211> 149
 <212> DNA
 <213> Homo sapiens

<400> 1196
 gaattcgcgg ccgcgtcgac attgggggtg caggtggcaa gaagggtgat ttgtgtcaag 60
 agctgaacat gctgctgcat ctgctgctgg agtctcttcc tttgtgctgg gtccagaatc 120
 agggctctgat gaactccctt aactcgag 149

<210> 1197
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 1197

gaattcgcgg ccgcgtcgac ctttaataaa aattaggaga aaatgtcgaa gcagcagctc 60
cttccactct tggcctgggt ggccctagtt ccaactgtaca ctttggccac tgcgtcactg 120
ccggttccag ggcagccggg agcccccactt gggaccctgg ccctcccctt tgtgaggctg 180
gtgcttcggg acgtcgctt gctcgag 207

<210> 1198

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1198

gaattcgcgg ccgcgtcgac gcagcagttt ttgttcattc atttggccca aaatcacgtg 60
taggatttgg ggatgtggat atttaagaca atttcttttt tcttttgggt taataggggc 120
gggtataggg accaactggg accgagtggc caggggggccg agcacgggtca tgcgtggccg 180
cctgcatgca tgcgtgtggc gggctgggct gggcgccggg cggctcgtggg gcaggggttg 240
gggtctcacc tcgag 255

<210> 1199

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1199

gaattcgcgg ccgcgtcgac caggattgtc attttcctct ttgectgtgg gtttaacttt 60
tgtatttttt taatcacaaag ttgtatacaa aatgttttta tegtactctt tggagatgcc 120
cattctactt ttgaatttag cttttactaa ttgcacatctg gaagctcagc aagtgcacaa 180
gccttacttt ggttacgtg gaaaccactg ccaccctggg ctcgag 226

<210> 1200

<211> 301

<212> DNA

<213> Homo sapiens

<400> 1200

gaattcgcgg ccgcgtcgac ccgccttgcc cagcatgtcc tcaactttct gggcgttcat 60
gatcctggcc agcctgtcga tcgctactg cagtcagctg gccgcccga cctgtgagat 120
tgtgaccttg gaccgggaca gcagccagcc tcggaggacg atcgcccggc agaccgcccg 180
ctgtgcgtgt agaaaggggc agatcgccgg caccacgaga gcccgccccg cctgtgtgga 240
cgcaagaatc atcaagacca agcagtgggt tgacatgctt ccgtgtctgg agggctctga 300
g 301

<210> 1201

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1201

gaattcgcgg ccgcgtcgac ccgcgccgaa gcacctagag agcggcgcgt gcgcagcggg 60
agtgaagcg gagatcccgg gtgcgcgag agccgcaagc ggagttgggt ggcgctatgc 120
tatcaccgga ggcagagcga gtgctgcggt acctgtaga agtggaggag ctgcgcgagg 180
agggtgctggc ggacaagcgg caggtgagag gcccctccgc ggcgatgggg cctggcggcc 240
ggcgccgtgg gaaagcgcgc ggggtcgag tgagttgacc tggacaggcg gttaacggct 300
ccgaggcgac agacctgggc cgataaatat tcggccgcta ctaagtgagc gcctgcgcta 360
tgctggacat tacctcgag 379

<210> 1202

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1202
 gaattcgcgg cgcgctcgac gtggtggttc cgcgatggta ggccgctggc gggctcggcg 60
 cggcctcttg gagaatgcca acccctcat ctaccagcgc tctggggagc ggctctgtac 120
 ggcaggcgag gaggacgagc aggttcccga cagcatcgac gcacgcgaga tcttcgatct 180
 gatcgctcc atcaatgacc cggagcatcc acaaacgct cgag 224

<210> 1203
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 1203
 gaattcgcgg cgcgctcgac gtgatatttg tgggatggtg ggtatgtttt gtttcctgat 60
 tttcttgacg tctctgctgg gctttgggac taagctgta cttgcctccc aaagagttgg 120
 gaagtgtgc tcatttctcc ttgccaggaa caccatggct ggcactcgac ggggtggagg 180
 gcagggttgg ggtaggcccg ggggtcctgg ctgcagcctc atgccgccac ccccgagga 240
 gtgcgctggg gagccgctgt tcatgctgta ctgcgccatc aagcagcaga tggagaagg 300
 cccattgac gccatcacgg gtgaggcacg ctactccctg agtgaggaca agctcatccg 360
 gcagcagatt gactacaaga cactgaccct gaactgtgtg aaccagaga aactcgag 418

<210> 1204
 <211> 404
 <212> DNA
 <213> Homo sapiens

<400> 1204
 gaattcgcgg cgcgctcgac ctcatgctga ctttactctc cttcttcttg ggggtgtttg 60
 tttctttctc ggtttgctgg ttggaagacg aagatgagga ggagctggtg ctggccctcg 120
 aatcgtcatc cgacatagcg aacccccac cccacccgc aaacagcccc tctctttgtg 180
 tctggtcct cctgcccgc gcggcggtg ctgctgcggc tgcggctggg cctggccact 240
 cgtgtctctc tctcgctggg agagaagcgg aagtgcagca acagcaacta ttaaacaggc 300
 aatggcttcc cccagccaca cagctcgca cacacaccac tctccgccc cgcctctctc 360
 ctctctctc tctctctct cgcctcacc cctccccct cgag 404

<210> 1205
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1205
 gaattcgcgg cgcgctcgac cgtccttgag gacgccgtgc cgggtcagtg ttagcctcca 60
 gccctggttg tggaggcgca cagaagtcac ggcatgtct gagcagatga gagccaacgt 120
 gggcaagttg ctcaagggtg tcgacaggtc tgagccgggt tggaggaagc gctctggcca 180
 agcggggcgg aggagaggtt tttccggaga cagcaagggt tgttcagggt cctgggcttg 240
 ccgcggggtg gggtttctct atctcctgg aggaggagat gcttaaagaa acggcactga 300
 gctgggggta gtggctcacg cctgtgatcc tagcactttg ttaggctcga g 351

<210> 1206
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1206
 gaattcgcgg cgcgctcgac atgggctctt ggttttactt ctgcttctc ttttttttca 60
 tcatcatcgt catccagtt atccttgacg tctctgctct cgtcctcgcc tccccagcg 120
 tccccgcgg cagtgcggcc gccccacc ttccgactg ggtcttccac ggagaagcg 180
 tcggcgtccc aggagtccga gtccccgcc gccgcggccg ccgcccgcac ctcgag 236

<210> 1207
 <211> 278

<212> DNA

<213> Homo sapiens

<400> 1207

```

gaattcgcg cgcgctcgac atggttttcc tttttctggg tgtttttatt gtcacctca 60
ccatcgtggc tttgggcac tgccctgctg tcagtctctg gtccctgtt tctgggtgtt 120
ttgattgcc cctcaccat cgtggctctg ggcacctgag tgccctgag tcttgctcct 180
ccatctgcc tggctttgcc aggccttctg tgcctccac cccctctct gcctcctcag 240
ggaaagagtc ggcaggtgcc ctttctctcc acctcgag 278

```

<210> 1208

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1208

```

gaattcgcg cgcgctcgac aaaaggcctt atttctcttc ttgattggca taatgttgc 60
atttctttac acatcacagt atttcttact tccttaagtg gcgtagggtt tattcctcag 120
cagtcacta tctcatagat tagccaggca tgggtgtgca cacctgtgat cccagctact 180
tgggaggctg aggcaggag atcacttgag ccccgagggt tgatgccgta attgtgccac 240
tgcactccaa ctgagcgacg tttctctgaa aaaaataaaa ataaaataaa actattttaa 300
aagtaaatat ctcatagagt agctgtgtga taaggatgtt tagctatgaa tggctcttgg 360
aaaaggcaag ggcttaaaag aaagaatctc gag 393

```

<210> 1209

<211> 285

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (212)

<220>

<221> unsure

<222> (215)

<220>

<221> unsure

<222> (227)

<220>

<221> unsure

<222> (249) .. (250)

<400> 1209

```

gaattcgcg cgcgctcgac ggcacatttt acaaggaaat ctgtgtcaaa acagataaca 60
gtgcataaat caatccaaat ttagaccctg gcaaccagtt cccattgct catatacggg 120
actctgtcaa acggtaaata ggcaatcacc tctcttgaaa agtataacac ctctctcgca 180
ctggtggaaa gcaaaattga ctttttgttt gntgnataaa aacactnagc acttcagaaa 240
ttaaagaann gcctactcac cccacaccct tcccaaaate tcgag 285

```

<210> 1210

<211> 405

<212> DNA

<213> Homo sapiens

<400> 1210

```

gaattcgcg cgcgctcgac tgcagctctg aagaagctgc tctattcggt tttgttttcc 60
cgccactggg gcaagccctc cttccacact atgaagacga aaattgccag caccacatga 120

```

```

agcccgacca ctgcaacaat ggtcgcataa aagccgctgt cttcagggga catcaacatc 180
agacttttga aaagaagtaa tttgcaggaa aaatataacc ccacaggaa ttttaaccata 240
agccctgcaa aaaggagaaa aatcttgaaa gtcatagcca caacgccctc agacttgggc 300
tcggctgctg cggcagtggc agcccgctgc gcggtaggcg gaggcctgtg agagcgcggc 360
atcgtcagtc agtcgcgcgc tctgtccgctc cgctgatgcc tcgag 405

```

<210> 1211

<211> 284

<212> DNA

<213> Homo sapiens

<400> 1211

```

gaattcgcg cgcgctcgac cacaaccccc actccagggc cagtttcccg cctccagctt 60
cctgtcccat cagaaccgta cactttgagc atgctcagtg tattatatgt tgattacatt 120
tatatatatt gaccctattc tatattctat atcagattta ttttattata gccagggtgcc 180
atggctcagc ctcagcctcc caaagtgtcg ggactaccag catgagccac tgcaccagc 240
ccccagatct ttggcctcat gaggtcgaca gtccagttct cgag 284

```

<210> 1212

<211> 335

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)

<400> 1212

```

gaattcgcg cgcgctcgac nacatgttgt cacaccagc catccgccgg agctctctct 60
taactgagaa actcctcaga ctccctttctc tcatctcaat tgctctccca gaaaacaagg 120
tgtcagaagc acaggctaatt tctggcagcg gtgcttcttc caccaccact gccacctcaa 180
ccacatctac caccaccacc actgccgcct ccaccagcc cacacccct actgcaccca 240
cccctgtcac ttctgtctca gccctggttg ctgccacggc tatttccacc attgtcgtag 300
ctgcttcgac cacagtgaact accccacaac tcgag 335

```

<210> 1213

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1213

```

gaattcgcg cgcgctcgac ggataaagca gatgtttatt ggggcattcc ttatcccagc 60
tatgggtgtg ggcactgcct ttttcatcaa ttcatagcc atttattacc atgcttcaag 120
agccattcct tttggaacaa tgggtggcgt ttgttgcatc tgtttttttg ttattcttcc 180
tctaaatctt gttggtacaa tacttggccg aaatctatca ggtctcgag 229

```

<210> 1214

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1214

```

gaattcgcg cgcgctcgac ctggccttcg actcgctatg tccactaaca atatgtcgga 60
cccacggagg ccgaataaag tgctgagga caagcccccg ccgagcgaat gtaacccggc 120
cttggacgac ccgacgcccg actacatgaa cctgctgggc atgatettca gcatgtgcgg 180
cctcatgctt aagctgaagt ggtgtgcttg ggtcgctgtc tactgctcct tcatcagctt 240
tgccaactct aaggagctcg ag 262

```

<210> 1215

<211> 505

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (14)

<220>
<221> unsure
<222> (17)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (99)

<220>
<221> unsure
<222> (103)

<220>
<221> unsure
<222> (112)

<220>
<221> unsure
<222> (128)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (209)

<220>
<221> unsure
<222> (215)

<220>
<221> unsure
<222> (230)

<220>
<221> unsure
<222> (408)

<220>
<221> unsure
<222> (489)

<400> 1215
gaattcgcgg csgngtngac acactggtga ggcggggcan gggttcctgg agagagggca 60
gcgaggatcc ctatcctggc ctggggatta tgaacatang tanccggggc anggccctgg 120
gtgggacngt ggcctccact ggcctacca aagtgcctgg gccccaatcg ttctccatgc 180
ccagggggccc caggtgggcc anacctctng cctgntcctc agccctactn atggggacat 240


```

tcagggacct ccatgaagtg ggcgggggag catccaaccc ctgctagccg gcagctgtgg 300
ccctgatcaa atcaggggct ggggagggaa agtgggtcca ttgaggtggc cctgctccat 360
cagcccccta cgggacttgt gttcattaca gtgagggggg gctcccantg tctcccggcc 420
tcctaatgc tccctttgct gcaggggagaa gggttccaag atcacaaaat gtcaacaatg 480
ctggcctcnt gcaccaaagc tcgag                                     505

```

<210> 1216

<211> 263

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (211)

<220>

<221> unsure

<222> (222)

<400> 1216

```

gaattcgcgg ccgcgtcgac cctcacccgc ctcagcctct cgggttgatc caaggtcacc 60
gacgacggcg tggagctcgt ggccgagaa ctcgcgaagg tgcgcagcct tgacctcttg 120
tggtgcccac gcacaccga catggcgctg gagtacgtgg cctgcgacct gcaccgcta 180
gaggagctcg tgctcgacag gtgtgtacgc ntacaggaca tnggcctcag ctatctgtcc 240
accatgtcgt cctccactc gag                                     263

```

<210> 1217

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1217

```

gaattcgcgg ccgcgtcgac taaaggtctg agaagaggat tatggcctat ttgtaaagct 60
gagggaggct cagagtagct taatgctgcc tggtgggct ggaggcagg actgagggcc 120
tgtaattgtt ctggggcaat ggggagccat agaggggtgtg tgagcagagg caaagcccaa 180
tcagactagg agcaggggaa agatgtcac ctgggctcct ctgctggccg ccactccacg 240
gaatgggtaca aactcttcac ggccaccagc cactcccga gcacagttga cgtgttatcc 300
atgttgtggt ccgtagccac ccatagcgcc gtgcgtccc gcgggtgccg cagccgctcg 360
ag                                     362

```

<210> 1218

<211> 417

<212> DNA

<213> Homo sapiens

<400> 1218

```

gaattcgcgg ccgcgtcgac cgccaagatg aaccgccaga gaaccaactc catcgggcac 60
aaccaccac actggggggc tgagcgcccc ttctacaacc acctgggtgg caaccaggtg 120
tccaaggaga tgaagcggat gggctttgaa gaccccaagg acaagaacgc ccaggagagt 180
gcgaaccctg aggatgaagt ggatgagttt ctgggccgtg ccattgacgc caggagcatt 240
gataggcttc ggtctgagca cgtccgcaag ttctctctga ccttcaggga gcctgactta 300
gagaagaagt actccaagca ggtagacgac cgatttggtg cctatgtggc gtgtgcctcg 360
ctcgtcttcc tcttcatctg ctttgtccag atcaccatcg tgccccactc gctcgag 417

```

<210> 1219

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1219

```

gaattcgcgg ccgcgtcgac cttcttttaa aaatatttta agagtattag taaactttgc 60
cctcataatt tagaatgtca tttctgaaac gaatccacca cttctgggtc tgtgtgaaga 120
atcactcaaa gcaggtttta aatgcagatt ttctgggcca gtcattgggtg ctcattgcctg 180
tggtcccggt actttggggc gggcggatcg cttgggggtcg ggagtccgag gccggcctgg 240
ccaacgtggc aaaaccctgg ccaacgtggc gggatcccg cttcttcgag 290

```

<210> 1220

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1220

```

gaattcgcgg ccgcgtcgac gagcatagat ggaattccaa aatatgtaca ttcagctggt 60
tggtttttcg tttttcattg ttattattgt gagaatgctg ttattgggtg tgtgtgtgag 120
tgcccgctag ccagtgtgc ctcggggcac gctgtggggc cacctcagtc ctgcctgggt 180
cctgggtgct tggacccac gtgcttggg ccaggctgcc cttgcccag cccggggccc 240
ccatgatcac cgctcgagc agccgcgcgg acgccccat g 281

```

<210> 1221

<211> 338

<212> DNA

<213> Homo sapiens

<400> 1221

```

gaattcgcgg ccgcgtcgac ctttttgccg tttcttggat gctgtttaag tgatatttac 60
cttagtagtt tcccaggggt taaggccgct tcagtattaa ggctagatca gagagtttcg 120
ttctgttgct gttgctcaat caatttatgt cgttacatcg tttgtggatc atggctatgt 180
gcctgggtctt tggccaggag aaggggcagg aaagtgtatg tacgaagatg actaacacag 240
gaccctgtcc tttaggagtt gatgtacgtg atgaattagt caagtcatgc atggtggtga 300
gggccatata aggggaaagt gttactggaa aactcgag 338

```

<210> 1222

<211> 409

<212> DNA

<213> Homo sapiens

<400> 1222

```

gaattcgcgg ccgcgtcgac attttatgat aaaaatgaaa ctgagttggt tggatgaatgt 60
cactggagct atcagcattg ctggaattca ttggtaccat ggcacagaag gctacgtgga 120
gcctgattgc cttgccttg ctgtttgctt tgataatgga agatgccaaa taatgagaca 180
tgagaatgac caaaatcccg ttttgattga cactggcatg tacgtagtag gcatccagt 240
gaaccacatg ggcagcgtgt tagctgtggc aggcctccag aaggcagcca tgcaggacaa 300
agatgtgaac attgtgcagt ttacactcc gtttgggtgag catctgggta ctttgaaagt 360
tcctggaaag gaaatatctg cactatcttg ggaaggagat ggactcgag 409

```

<210> 1223

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1223

```

gaattcgcgg ccgcgtcgac ggtcactact attgagtttc ttccttaaca ctgattaaat 60
gatcttaact ccctcagcta aaactggcat tactgactcc cagctatatt tctccagact 120
tgcatttttt tttttttttt tttagacag ggtctcactg tcgcccaggc tggagtgcag 180
tggcgtgata tcagttcact gctgctttcc ctctgggct caagcagttc tcccacctca 240
gcctctcgac taacagggac tataatcttg cagcactatg ccgacctcga g 291

```

<210> 1224

<211> 324

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (47)

<400> 1224

```

gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctagacntgc ctcgaggacc 60
cctagctccg acatgtcgcc ctctggtcgc ctgtgtcttc tcaccatcgt tggcctgatt 120
ctccccacca gaggacagac gttgaaagat accacgtcca gttcttcagc agacgcaact 180
atcatggaca ttcagggtccc gacacgagcc ccagatgcag tctacacaga actccagccc 240
acctctccaa ccccaacctg gcctgctgat gaaacaccac aaccccagac ccagacccag 300
caactggaag gggtttggtc cgag                                     324

```

<210> 1225

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1225

```

gaattcgcgg cgcgctcgac atcacctta attgttctac ctataaaatc aattcagagt 60
aattctaaac tttccccact ctcaccatgg tcttctgtcc ttccatcttg cattgcatgt 120
ccttttttgc ccactgcagc cattcttcga cctctagtc tttgactcct gtactttctc 180
ccaagtgtt tttgtttttg tttttgtttt tgtttttgac ggagtcttgc tctgtcgccc 240
aggctggagt gcagtgggtg gatctaggt cactgcaagc tccacctccc ggattcacgc 300
cattctcctg cctcagcgac ctcgag                                     326

```

<210> 1226

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1226

```

gaattcgcgg cgcgctcgac cttattacaa aatcaaacct gcattgcaatg atcaaagctg 60
aagaaagcag taagcaagaa gagtgacca caacatcaac agccccagtc cctacaacag 120
aaattccgac cacaatgagc accatgggtg ctgccgaagc agcagctgct gttgttgagc 180
cagcagcagc ggcagcagca gcagcagctg cagccaatgc taatgcttcc acttctgctt 240
ctaatactgt cagtggaaact gttccagttg ttcttgagcc tgaagtact tccattgttg 300
ctactgttgt agataatgag aatacagtaa ctatttcaac tgaggaacaa gcacaactta 360
ctagtacccc tgctattcag gatcaaatg tggaagtatc cagtaatact ggagaagaaa 420
catctaagca agaaactgta gctgatttta ctcccaaaaa agaagaggag gagagccaac 480
cagcaaagaa aacatacact tggaatacac agctcgag                                     518

```

<210> 1227

<211> 733

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (3)

<220>

<221> unsure

<222> (12)

<220>

<221> unsure

<222> (20)

<220>
 <221> unsure
 <222> (28)

<220>
 <221> unsure
 <222> (46)

<220>
 <221> unsure
 <222> (82)

<400> 1227
 ganggatttc cnttttaaan ttagcaangc ctagcatttt tgggttnattt gccgggggttg 60
 agactataac ctaactggaa antttttattc atcatttttaa ctggaagatt gtgggtttaag 120
 actgttaactg tgggggtaggg ggggtggcct atgcctgtaa tcctagcact ttggggaggct 180
 gaagtgggga ggatcactgg agcccaggag ttctaaacca gcctgggcaa catagggaga 240
 ccctgtctct acaaaaacaaa acaaagacca taactatgga aaaacctaata gctacagtaa 300
 ctgatgtcat tcatgtaact catgttgtgt aatgttttcc tagaaatttc aaggtaaaga 360
 tgtcgggggtt aagtgtttga tatatcccag tcaactgtgac agtttttgact cttcacgcct 420
 ccaaaaattg ttttcagccc agaaacattt gagaggcttt taaagtggaa agaactgcct 480
 ttatacaatt tacaaatcat ttctcttccc tccgaagaca cagatgacag gaaaatcact 540
 tactccatta aagttccttt tcagaattaa tctgggctgg agccacaaag aattttgttt 600
 tgggtcctct aaagccaaag gtcataagtaa tatataaaca gaatgggaatg ttttgcat 660
 atgacatgtt tgagaaaagt aatttaagct tttgcttttt agatgtcata cttgtaacac 720
 cacagatctc gag 733

<210> 1228
 <211> 488
 <212> DNA
 <213> Homo sapiens

<400> 1228
 gaattcgcgg ccgcgtcgac gaagaggaag aaccaatgga tacttccagt gtaactcaca 60
 cagaacacta caagacactg atagaggcag gcctcccaca gaagggtggca gaaagacttg 120
 atgaaatatt tcagacagga ttggtagctt atgtcgatct tgatgaaaga gcaattgatg 180
 ctctcaggga atttaatgaa gaaggagctc tgtctgtact acagcagttc aaggaaagtg 240
 acttatcaca tgttcagaac aaaagtgcac ttttatgtgg agttatgaag acctacaggc 300
 agagagagaa acagggggagc aaggtgcaag agtccacaaa gggacctgat gaagcgaaga 360
 tcaaggcctt gcttgagaga actggttata ctctggatgt aaccacagga cagagggaagt 420
 atggtggtcc tccaccagac agtgtgtact ctggcgtgca acctggaatt ggaacggagg 480
 aactcgag 488

<210> 1229
 <211> 756
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (28)

<220>
 <221> unsure
 <222> (53)

<220>
 <221> unsure
 <222> (61)

<220>

<221> unsure

<222> (80)

<220>

<221> unsure

<222> (85) .. (86)

<220>

<221> unsure

<222> (185)

<220>

<221> unsure

<222> (375)

<220>

<221> unsure

<222> (398) .. (400)

<220>

<221> unsure

<222> (477)

<220>

<221> unsure

<222> (669)

<220>

<221> unsure

<222> (719)

<220>

<221> unsure

<222> (727)

<400> 1229

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ntgggattcc tggtcacatcan gcaannatca agcccgctcc tccacaaacc gagcaagtag 120
agagcaagag gaagtcaggg ggaatgagg ttagcattga ggaacgtctg ggagcaatgg 180
atatngacac acacaaaaag gaaaggaaga cctccagacg aatagcttcc cagttcttct 240
taccagggc ttagaaagta acgattttga aatgctaaat aaagtacttc aaactaggaa 300
tgtaaaccctt ataaagaaga ctgtattaag gatgccctg cactactatta ttccgttgtt 360
acaagagctt acaangaggt tacaaggaca tcctaatnnn gctgtgctaa tggttcagtg 420
gctaaaatgt gtgttaacag ttcattgcac atacctgtcc acgttgctg acctggcccc 480
cagctgggga cactctacca gttaattggaa agcagagtca aaacttttca gaaactttca 540
caccttcag gaaagcttat tcttctaatt acacaagtaa cagcatcaga gaagacaaag 600
ggagcaactt cccctggaca gaaggcaaag ttggtgtatg aagaagagtc ttctgaagag 660
gagtcctgang atgaaatagc agataaggat tctgaagata attgggatga agatgaggng 720
gagagtnaaa gtgaaaaaga tgaggacact ctcgag 756

```

<210> 1230

<211> 396

<212> DNA

<213> Homo sapiens

<400> 1230

```

gaattcgcgg ccgcgtcgac gaaagaaact gaggctgcac aaatggagca tcagaaggag 60
agaacagct ttcaagagag gatccaggca cttgaaggag acctgagaga gaaggaaaga 120
gaaattgcta cagagaagaa aaatagtcta aagagggata aagccattca gggtttaacc 180

```

atggcattaa aatcaaagga aaaaaaggtt gaagaactta accttgaaat tgaaaagctc 240
agtgtctgctt ttgctaaagc cagagaggcc ctacagaaag cacagaccca ggaatttcag 300
gggtctgaag actatgagac tgctctatca ggaaaggaag ccccttcggc tgcgctgcgc 360
tcacaaaacc tcaccaagag tacagaaaac ctcgag 396

<210> 1231

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1231

gaattcgcgg ccgctgcgac ggaaagatga atgtcgagga agatgtccag gaagagcaaa 60
gcaaggaagc cagtgaacct gagagcaacg aggaagaagg tgacagttca ggcggggagg 120
acacagagga gagcgacagc ccagatagcc acttggaact ggaatccaac gtggagagtg 180
aggaagaaaa cgagaagcca gcaaaagagc agaggcagac tcctgggaaa gggttgataa 240
gcggcaagga aagagctgga aaagctacca gagacgagct gccctacacg ttcgagagcc 300
ctgaatccta tgaggaaactg agatctctgt tgtaggaag atcgatggaa gacgagctcg 360
ag 362

<210> 1232

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1232

gaattcgcgg ccgctgcgac aacactgata acactcagaa aaccacagtg tgttttcata 60
tttggaaactt tgtaatagcg ggagtagcag tagtccaaac ctagtatagg gaaaggataa 120
aaataagtca ccttcaccaa gagatgccaa tgattaccaa acaactcgag 170

<210> 1233

<211> 317

<212> DNA

<213> Homo sapiens

<400> 1233

gaattcgcgg ccgctgcgac gacatctcca tggagatccc ccaagaattt cagaagactg 60
tatccaccat gtactacctc tggatgtgca gcacgtggc tcttctcctg aacttcctcg 120
cctgcctggc cagcttctgt gtggaaacca acaatggcgc aggccttggg ctttctatcc 180
tctgggtcct ccttttcaact cctgctcct ttgtctgctg gtaccgcccc atgtataagg 240
ctttccggag tgacagttca ttcaatttct tegtcttctt cttcattttc ttcgtccagg 300
atgtgctcgg cctcgag 317

<210> 1234

<211> 301

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (75)

<220>

<221> unsure

<222> (98)

<220>

<221> unsure

<222> (106)

<220>

<221> unsure
<222> (141)

<220>
<221> unsure
<222> (244)

<400> 1234
gaattcgcgg ccgcgtcgac caaagcaaga ccaactgatgc agaccctgcc tttaagaacc 60
acgggtcaaca atgggnactgt gttaccaaag aaacctantg gctctntacc atccccctcc 120
ggggtcagga aagaaactgc ngtgccagca accaaaagta acatcaagag gaccagctct 180
tctgaacgag tgtctcctgg gggtcgaagg gaaagcaatg gggattccag aggaaaccgg 240
aatnggcaca ggctccacca gcagctcttc cagtggcaaa aagaacagtg aaaagctcga 300
g 301

<210> 1235
<211> 346
<212> DNA
<213> Homo sapiens

<400> 1235
gaattcgcgg ccgcgtcgac gtggagggtg gtctttggaa gtgatgaaga tgaatcgctc 60
ttgggcaggc acctacctgc ttccagagat cttttgccta ggttttcaaa agcctcactt 120
aaactttttg cttttgcttt gctggaaggt aaactcagcc tgcgggtttc taagccctga 180
aggccaccag gactcgcagg acccctctg tacatgttca tggcccagga gtccgggagg 240
cacatccggc gaggctgggt cctgggactc aggcaatatt cccgatgaag ctgatcaaat 300
cggatttcaa tctccctctg acggttctct ccatggcccc ctcgag 346

<210> 1236
<211> 353
<212> DNA
<213> Homo sapiens

<400> 1236
gcctcaagaa agccctggaa cgaagtgata agtatataga ggaactagaa tctcaagttg 60
cacagctaaa aaattcaagt gaagagaaaag aagctatgaa ttccatttgc cagacagcac 120
tttctgcaga tggcaaaggg agcaaaggca gtgaggagga tgtggtgtca aagaatcaag 180
gcgatagtgc cagaaagcag cctggctcat ccacctccag ttcttctcac ctagegaagc 240
cttcagcag cagactgtgt gacaccagtt ctgcaaggca ggaaagtacc agcaaagcag 300
accttaactg ttctaagaac aaagacctat atcaagaaca ggtagaactc gag 353

<210> 1237
<211> 856
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (62)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (182)

<220>
<221> unsure

<222> (202)

<220>

<221> unsure

<222> (418)

<220>

<221> unsure

<222> (447)

<400> 1237

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gaattcgcgg cgcgctcgac caatttttaa acttatgaac atccaacagc aactaatgaa 60
ancaaaccctc aagcagatgg acagtcttat gcccttaatg atgacagcac aggatccttc 120
cantgccccca ggagacagat ggccagtttc ttccctgtgc accggagccc acggaccctc 180
ancgactttc ttcttctgaa gnagactgag agcactcagt gctgcccagg gagccctgtt 240
gcacagactg aaagtccctg tgatttgtca agcatagtgt aggaggagaa tacagaccgt 300
tcctgttagga agaaaaataa aggcgtggaa agaaaagggg aagagggtga gccagacact 360
attgtggact ctggaactgt atctgatcaa gacagctgcc ttcagagctt gcctgatntg 420
tggagttaaag ggcacggaag gcctttngtc ctgtggaaac agaaatgaag aaactggaac 480
aaaatcttct ggaatgcccc cagaccagga gtccctgagc agtggagatg ctgtgcttca 540
gagagacttg gtcacggagc caggcacagc ccagtattcc tctggagggtg aactgggagg 600
catttcaaca acaaatgtca gtaccccaga cactgcaggg gaaatggaac atgggctcat 660
gaaccagat gccactgttc ggaagaatgt gcttcaggga ggggaaagta caaaggaaag 720
at ttgagaac tctaatttg gcacagctgg agcctctgac gtgcacgtca caagtaagcc 780
tgtggataaa atcagtgttc caaactgtgc ccctgcccgc agttccctgg atggttaaca 840
acctgcgagt ctcgag 856
```

<210> 1238

<211> 358

<212> DNA

<213> Homo sapiens

<400> 1238

```
gaattcgcgg cgcgctcgac atgcttcata tgcattgggt gaggtctcct tttgtttctg 60
tttccatctt gcatggggtg ggggtgggga gacggcaagg gaactgcttg atttatttaa 120
tatataattc ctctaactgt gatcttcatt ttatagggtt tagcttttaa ttgttgcat 180
tacttcttgc atttaattag tagatgtttt ctttttggtt ccagcttaga ttttttatgc 240
tgtaataaaa atggcacctc atcaagtact ctttttggtt agttggagtt tacttgcaaa 300
attagtctcc tttgatgggc agtcgtgtga atcattcttt gtccacgaaa cgctcgag 358
```

<210> 1239

<211> 623

<212> DNA

<213> Homo sapiens

<400> 1239

```
gaattcgcgg cgcgctcgac caaattctta tgactttgtg gttttataga tgttctagaa 60
actttgtatg taggtatcta caaaattagt tcattccctc gaattttttt gcattcatat 120
ttttgaggtc ttgatgtttt cagcctcttg cgaatctttt tcattgaatt tgaaccattt 180
gtaaaatctg tgatgctgaa gcagagtgtg tcacaaagtg atgagaacat tactaaaatc 240
cacggacgca ctgcgacctc agggctcaac ggctgactcg gcagcgggca gccacccac 300
gtcctccctgc ggtcactcgc acaccacagc ctgaagctcc cccagcgctt gcacctcgca 360
cacagctaag gtcaaagttc aaacgcactc cacacggaag ctcttcttat acccgaagag 420
cagtctcaga aagcaagatt acttttgtgt tttttaaaaa atgattcttt aatgtatttt 480
tctaaacatt ctgattggaa gtagtggatt cctaaatgat tccaaagtca cctgtaattc 540
ttctgttttt gttttgttct gtcttttctt cattttggct ttgggtgggg ggaggggcag 600
gtgacacaaa ggacgagctc gag 623
```

<210> 1240

<211> 323

<212> DNA

<213> Homo sapiens

<400> 1240

```
gaattcgcg cgcgctcgac gatcttacca agatgcatct cacagaaaac cctcatccac 60
aggtgactca tgtgtcttct agtcagtctg gttgtagcat tgccagtgc tctggaagca 120
gcagtttata tgatatctat caggctacgg agagtggagt aggagatgta gatttgacac 180
gtcttcacga aggacctgtt gattctgagg atgacgaaga ggaagatgaa gagattgac 240
gaacagatcc attgcagggg cgagatcttg ttcgagaatg tcttgaaaaa gaacctgcag 300
acaaaactga tgatgacctc gag                                     323
```

<210> 1241

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1241

```
gaattcgcg cgcgctcgac cagaatgcca ttcttctgcg gttegttcac cttgcccgc 60
aggcagcagt gtgatagggc attgtggatg atgaacttgt tggacttggc gctgggttct 120
ttgtacagcc gtggacctgt gtactcgggc actgacgctg ttctcgag 168
```

<210> 1242

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (113)

<220>

<221> unsure

<222> (412) .. (413)

<400> 1242

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gaattcgcg cgcgctcgac attccaacta gtgaatttat taacagtaag tnaacagcaa 60
aagcaaatag gcaacttcaa gatcctttag taatcatgac aggaaacatc ccnacatggc 120
ttactgagct aggaaaaaac tgcccatttt tctttccttt tgatacccg ccaatgcttt 180
tttaagtaac tgcatttgat cgggaccgag caatgcaaag attacttgat accaaccag 240
aatcaacca gtctgattct caagatagca gagttgcacc tagattggat agaaaaaac 300
gtactgtgaa ccgagaggag ctgctgaaac aggcggagtt tgtgatgcag gacctcgga 360
gctcacgggc catgttagaa atccagtatg aaaatgaggt tggtagaggt cnnnggtctc 420
cactcgag                                     428
```

<210> 1243

<211> 735

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (443)

<400> 1243

```

gaattcgcgg cgcgctcgac catcccatca ccttcacctt tgaggtttat ccaggatctg 60
acaantccca gcatcccagc tgctgccccc tggcctggcc tcctgctccc caaccccagg 120
catcttcccc ttctccacat gcggttggcg caagccaggg gggaatcaga gccccctac 180
agactcgaag gtgggcttgt ttctgtgacc tgcaagcccc ctccccacct gacttccatc 240
ctctctcttc ccctcgcttg ctgtgctgtg gccatgctgg ggtcctgett gcacttccca 300
cggatgattc tcagcacatc ccacagttt cacttttgaa gctgccctcc tgggctgctc 360
ccaccatagg ctgcgtcatg cattccctct tctcagatgg ccgtgccttg cgcctcactc 420
ctgcgtctcc tccagggctc atntcagatg tcccctcctt gccagggctc tccctggcca 480
cctggccaca cgctcactcg cactgctgtt tcttagtggt tctcagtggt tgtagcttat 540
ttcttggtgt ctgtgggtccc caccatagac tgtgtgggta tgtttgtctt cattcagagc 600
accatgcccc gagtccacga ggccctggca cagaggcagc caccaggatg tggttgttta 660
acaaatagat gggagtgtgt ctcttcgatg gcttcttgct cgtggcagtt ctgggggtccc 720
ccccaccgac tcgag

```

735

<210> 1244

<211> 576

<212> DNA

<213> Homo sapiens

<400> 1244

```

gaattcgcgg cgcgctcgac cgtcgattga attctagacc tgccctcgaga tttgatgccg 60
tgttccctct ggaccagttt taagccatct cttctgttgt ttcttctctc ccaaagatgt 120
agacttttcc acttaaaagc atttccaaga tcttatTTTT tcatcccttt ttctgtccct 180
attctctttc actcccaca cttgttcta gctgtctct gttgctctga tgtccatgtt 240
gatggtggcg gtcttcaacc atgccatccg tgtgccaacc cagcactttc ctgccatccc 300
tgtagccctt gcccacaacat ctgtgcattt gactccctt ctctgaccga ggctgctcc 360
catccctctc tctaccaact catcccttct ctcccacctg ccctttgtgc tgccccccac 420
aaccacacca ctgaggtctc cagctcttgg gatcacattg acacaccccc acattttaca 480
ctctgtggcc cattgcttct gagctgtatt gtccagcacc atgaggacc caccatgga 540
gacactgggt tttgtaccat cccagacca ctcgag

```

576

<210> 1245

<211> 756

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (14)

<220>

<221> unsure

<222> (81) .. (82)

<220>

<221> unsure

<222> (85)

<400> 1245

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gaattcgcgg ccngtgcgac cgcggccgcg tcgaccggta ttagaggaaa atagtaaact 60
gaaactctat ttctgttctg nnagngecaa tttcacctat tgtattactt cgttaccat 120
tgcagctgtg tagtcagtca tccataggat tctttttgtt agacacaaaag tagaaaccag 180
ctgttgggcg ttgagacaag taggaatctt aggaaatgtt agcctgccag ttctactttt 240
tcctaactac ctgcctcacc acccccatca aatgggtggtc atgttttttg tcaccacca 300
ttcaggggag atgctatcaa cgaaccacgc tggtacaca caaatacctt ttctcagat 360
gatattaatc atctttgcct taaaaactga agctctacca agttttcact atgagagaaa 420
aaaaattaca acacctagcc ttgtagttaa caccacaact gactaatgga agttgacaag 480
atctaaatgc ttatacaaac tatcccagg tcacaggaaa ttaatggcaa tattatacaa 540
ggttagggta gttcacttct tataggaatt tggattttac ttcttaaact acaatggaaa 600

```

tgtctcaggc agtctgcttt gggaaatgtat tcttgaataa tactgatttc tcattgaagg 660
 aaaaaaacact atatccaaca actcagatat ggcagaagtg aagtcaatgt tccgggaagt 720
 tcttccaaag caaggtagt acaccacaaa ctcgag 756

<210> 1246
 <211> 539
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (11)

<220>
 <221> unsure
 <222> (17)

<400> 1246
 gaattcgcgg ncgcgtngac ccaaagcatt gaaagccgaa aagagaagaa agctgactca 60
 gggaaagggtg ttgacagga gacttgtcta tgactcgatc ttcaatttat tttttacata 120
 tatatgagaa gagtgtcaca attattaata aaactgcttt gatcatgtat tgtaaattct 180
 gtccctcaac ccaaatccac cttcatactg taagttagtg aatacttggt tcattttctgt 240
 gtttaaacct ctgagcagtg agacatccct gtgagcagat acaatagcca atgcaagaat 300
 ctgtgtgttc cttgctgtac gttagacatt tgtaaaactgg attctgattg tcagttttat 360
 gagagcaata gcttccttaa agagataagt catatttacc tagtttgat tttcctact 420
 tagtgacctg aagatgcctg ataatttcat tcagaagaat ttttgaaagg tagtcttact 480
 tctttttagt ttttatagct tagcattagt gacttatttc aaaagacca aatctcgag 539

<210> 1247
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 1247
 gaattcgcgg ccgcgtcgac ctgaagagag gaggtggct gcatcatggg agaagagact 60
 attgggaaga agttacctgc aactacagca actccagact catcaaaaac agaaatggac 120
 agcaggacaa agagcaagga ttactgcaaa gtaattattc catatgaggc acagaatgat 180
 gatgaattga caatcaaaga aggagatata gtcactctca tcaataagga ctgcatcgac 240
 gtaggctggt ggggaaggaga gctgaacggc agacgaggcg tgttccccga taacttcgtg 300
 aagttacttc caccggactt tgaaaaggaa gggaaatagac ccaagaagcc accgcctcca 360
 tccgctcctg tcatcaaaca aggggcaggc accactgaga gaaaacatga aattaaaaag 420
 atacctcctg aaagaccaga aatgcttcca aacagaacag aagaaaaaga aagaccagag 480
 agagagccaa aactggattt acagaagccc tccgttcctg ccataaccgcc aaaaaagcct 540
 cggccacctg agaccaattc tctcagcaga cctggcgcac tgcccccgag aaggccggag 600
 agaccggtg gtccgctgac acacaccagg ggtgacagtc caaagattga cttggccggc 660
 agttcgctat ctggcatcct ggacaaagat ctctcggacc gcagcaatga catactcgag 720

<210> 1248
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 1248
 gaattcgcgg ccgcgtcgac atttgagtgg gggcatagcc aaacatata acttattaat 60
 atttattttc tcaaagttat attctccatt tgggcagtgc taaagatgag aaaaacactc 120
 gag 123

<210> 1249
 <211> 193
 <212> DNA

<213> Homo sapiens

<400> 1249

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaata ctagcccagt ccatttcaga 60
cactctcccc taaaaactct ggtcacatta agctcactgt cctctcaact tctgtgcacc 120
tttgcataag ctgttctttt tactcagaat gctctccttc ctctttgtct taataacatg 180
ggctatcctc gag 193

<210> 1250

<211> 661

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (36)

<220>

<221> unsure

<222> (123)

<220>

<221> unsure

<222> (172)

<220>

<221> unsure

<222> (191)

<220>

<221> unsure

<222> (283)

<220>

<221> unsure

<222> (289)

<220>

<221> unsure

<222> (296)

<220>

<221> unsure

<222> (309)

<220>

<221> unsure

<222> (321)

<220>

<221> unsure

<222> (368)

<400> 1250

gaattcgcgg ccgcgtctac acanaaatta gaagcntagt atgattgcc aatcagaga 60
atctkgcaaa gttctgtaat tctaagtgt gtgctatatt tcctctggag aaggttatta 120

```

gantctccat tgcgtttctc tttctccatc tttttccctt gaggttagga gncagggttaa 180
aactcagaga nctcccaata ataatggttt aaaaacatca ggggcttcct gtatctctctg 240
tcaggaagcc gaggaataag caggctgggg ctggtgggcg tcnacatcnc agtttngttc 300
tatctttcng tcccacctgc nctgggatgt ggcttctaca ctccaatttg cttcttggtt 360
tcaagacngt ggtgttcttt ccatagctga gcagattatt ttgagaggtg ggtgatatgt 420
gagagagaaa tctggaacct tcttctgggt agatacagga taagatagat acagggtaaa 480
atggttgagca ctttgtacat gctttgagag cataatcttt gtcattctgtt tttttcccct 540
agacaatatc aggttaccgt caacattaat ccatttaaaa ggacatggac tgttgccatt 600
aatacttttg gattccatat aaccttaac acaataactt ctagaaaatg tgtgtctcga 660
g
661

```

<210> 1251
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (91)

```

<400> 1251
gaattcgcgg ccgcgtcgac agctatgcaa gaagctctgg ctaagcttaa agaggaagaa 60
gaaagacnga agagagaaga ggaagaacgt ntaaaacygc ttgaagaatt agaagccaag 120
cgtaaagaag aggaacgatt ggaacaagaa aaaagagaaa ggaaaaagca aaaagaaaaa 180
gaaagaaaaag aacgcttgaa aaaagaaggg aaacttttaa ctaaatccca gagagaagcc 240
agagccagag ccgaagctac tcttaaaactg ctacaagctc aggggtgtga agtgccatca 300
aaagactctt tgccaaagaa gaggccattt tatgaagata aaaagaggaa aaaaatacca 360
cagcagctag aaagtaaaga agtctctgaa tcaatggaa tctgtgctgc tgtagaagtt 420
atggaacaag gagtaccaga aaaggaagag acaccacctc ctggtgaacc agaagaagaa 480
gaagatactg aggatgctgg attggatgat tgggaagcta tggccggact cgag 534

```

<210> 1252
 <211> 635
 <212> DNA
 <213> Homo sapiens

```

<400> 1252
gaattcgcgg ccgcgtcgac caatttcttc agccttctac atcctctaca atgtcagctc 60
aggctcatte gacatcatct cccacagaaa gccctcatte tactccttg ctatcttctc 120
cagacagtga acaaaggcag tctgttgagg catctggaca ccacacacat catcagttctg 180
ataacaataa tgaaaagctg agccccaac caggacaggg tgaaccagtt ttaagtttgc 240
actacagcac agaaggaaca actacaagca caataaaact gaactttaca gatgaatgga 300
gcagtatagc atcaagttct agaggaattg ggagccattg caaatctgag ggtcaggagg 360
aatctttcgt cccacagagc tcagtcaaac caccagaagg agacagtga acaaaagctc 420
ctgaagaatc atcagaggat gcgacaaaat atcaggaagg agtatctgca gaaaaccag 480
ttgagaacca tatcaatata acacaatcag ataagttcac agccaagcca ttggattcca 540
actcaggaga aagaaatgac ctcaatcttg atcgctcttg tggggttcca gaagaatctg 600
cttcatctga aaaagccaag gaacgaaaac tcgag 635

```

<210> 1253
 <211> 319
 <212> DNA
 <213> Homo sapiens

```

<400> 1253
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctcc ctcccttctt tctttttctt 60

```

```

attgagcttg ttttcatcaa tatacatatt gaaaattcct ggtgtagaaa actcaacatg 540
tgctgaatac ggggtgtact tcccttcaac tacctaaaag gctgaacttt tgttaaattct 600
taaagaaatg gtcccaacag cttaacttca tttttttaat gatagttgaa tgtgttttcc 660
ataaaaaattt ctttttaaaa gaggcaactg attaaaacaa caacatggcc agcaccatta 720
tacaagtaat gttattgagt ttacaactga agttctgtaa aattgtttct agatcgacag 780
aatgttgtca tctcgag 797

```

<210> 1270

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1270

```

gaattcggcc aaagaggcct aggcgggggg gttggaggag gaggcagagt tcaccctgcg 60
aggcagctcg ctctcctttt tcattgatgg gctgtcactc agccgcagca ggatgggctg 120
gtctgaggtg ataacattcc cattcatgtg aaggttgcac ttcacggct gcccgctccag 180
acaccggttg ttgtacttct tatatcggt gatggcatcg tcctttttca caaacaccac 240
ctccgctacc ccaggatgga ccagtcgagc tcgcttgagg gccccacaca cacagaaaag 300
ctcaacaatg tctcctcag tgactcgag 329

```

<210> 1271

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1271

```

cagtggcctg agaggaagag accagcagga aggaaagatc ctcagcaaca aagtaaaacc 60
agaacaacag aggacctttc tgtgtaagaa tatattggct tagaaggtaa ataaaataat 120
tatatttctt agaattttct gactatccct aaatcctgca ggtaaattat tcccaacaaa 180
ttttcaaaag gcaatcaata ataagtaggt tcttcttcaa taacatgagc atatgcttct 240
taaagactgg 250

```

<210> 1272

<211> 311

<212> DNA

<213> Homo sapiens

<400> 1272

```

gaattcggcc aaagaggcct agagagattg acaagctgga cagcatggtg tcagaaggga 60
aaggtagcga gagctacagg gagctcttca gcctactcct gctggagaag gttgaacaag 120
aaacatggcg cgagaccggc atttcctttg tgacctcagt caccgcctc atggaacgtc 180
ttcttgacta cagggactgc atgaaaggag aggaaacaga gaataagaag ataggctgca 240
ctgttaacct gatgaatttt taaaaatctg agattaacaa ggaagaaatg tatatccgct 300
acatcctcga g 311

```

<210> 1273

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1273

```

gaattcggcc aaagaggcct acgagttctt cctctttaca cgccactagg tcaccaaact 60
gtccctgaaa tttccacca acttgatgat ttactcctcc aagatgcttc cctacccccc 120
actcgag 127

```

<210> 1274

<211> 126

<212> DNA

<213> Homo sapiens

ctgtccagat tatctagatt tatagttaag taaaatagac atatatctat ttccctaaaa 120
agtattatc gaagacagag acgaggaagg ttaccaaagt agatggtcag gctcgag 177

<210> 1285

<211> 410

<212> DNA

<213> Homo sapiens

<400> 1285

gaattcggcc aaagaggcct agtcctgccc ccaaaattta caccataaat ttctgccata 60
cttcactact ctttctcatt tttgtttttc cattattaat ataaaaagcc aggaatgtga 120
ggctcttctga gaaagctgca ccatgggtcaa gccattgtaa cctctgtgac ccacacgtat 180
acatccagaa ggcctcctgg agccagaaaag tctaggacaa caggaaaacc acaaaagaag 240
aaaaacagct agctgctgtc ttagctttatt agccaacctt gcaacattct accattgtaa 300
cagactctac cctaactgat ctatcaacct tgtgacattg tgcctgtga cccttcccg 360
ctgtgacccc ttccccctca atagatgagc aggtctagaa ttcaatcgag 410

<210> 1286

<211> 143

<212> DNA

<213> Homo sapiens

<400> 1286

gaattcggcc aaagaggcct agtctatttc caaagcttta tctgtattcat tcatagcatc 60
cacatggcgt ccaactttta aatagtcaac tccgatcttc acacatttta aagcccaaga 120
tgcggattgt ttctttactc gag 143

<210> 1287

<211> 741

<212> DNA

<213> Homo sapiens

<400> 1287

gaattcggcc aaagaggcct aaccttgagg gctaagtagt tgctgcactt gaccactatg 60
aagattgggt tgggaagggt ccttttgat gcacttgagc agggccccta atccctgggt 120
cacaggcctg tattgggcca cacggcagga gatgggacca tctagttgca gaaaaacaag 180
ctcaggactc cactgatc tacattatgc ctgagctgag atgtctcacc tcaactctca 240
tgatgcaacg agaagcccct tgggagcgtt tcagtccac tctatactcc tgtcattgtg 300
ctcatcacag tctggcttcc caaaatcaaa ttccctgggtc aaaaattgtc tttctgac 360
ctggcttttg gatgccacag aaggcccctg gagcaccag aagagaggta aacaggatta 420
cctgacacag ttaggtacat gggattacca aaatgatctt taatatctc caggttatat 480
tttaggggat aatattaata tatgttccaa agttgtatgg gatttctaaa attctaattg 540
ctgagtatat gctatcgatc acaattaagg ttgttaagtt attgtaaact atggagataa 600
ccaaatgtat ttgtcagttg tgtttctgac tgtaactacc ctggacattt tgttattcat 660
agacaattgt tgtcttgtt tgatcctctt caaaggatgg ttataatca gctacagaac 720
ttcaccaggc gccttctcga g 741

<210> 1288

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1288

gaattcggcc aaagaggcct aggcttgggt atctgggcct ttagtttttc tatgctgtca 60
catcctaatt ctgtcatgcc atccatgaac tctgttttg agaactcgca ctgtgttgct 120
gctctgaact tccatgcaat aatcaacaca ctaatgctgg ctgttctcga g 171

<210> 1289

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1289

gaattcggcc aaagaggcct agtgcgggag tccatgaaaa tacatacact agcagccatt 60
gtaaggtcta tctcattatg tttgccaaac tttgaagtct gggcaagcat cccgtttctg 120
cgcccgcctg ag 132

<210> 1290

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1290

gaaattcggc caaagaggcc taatcacaag ggggtatatt aatttatttt tatttctcta 60
tctctctatt ccactgtacc aactaaaggc taggggtttt tttgtttttt ttttgttttt 120
ttacttatac ttgacaatag tagaacacct aggaaaatcc actgctacat gattgattta 180
gtaagagttc tcgag 195

<210> 1291

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1291

gaattcggcc aaagaggcct agtaaaagtt tatctttttt tcctgatgat gtttagagtt 60
tggaagagtt tctttttggt tggtttttaca ggtggtatag ttaggggtcaa agaactggac 120
tggtcgaagg acgacctctg cacagggtgtg tgtttctctc ggacgtcccc cagtatgatt 180
cagtgaattcc tttgtataac ctccagtccc ctggctctgt ggtcttgaca gagctgtagt 240
cccagctgct gccacagtc catcggcgca tggcagcttc tctccattgg ccgatgagca 300
ccaactgtca ttctccgagg cctcgag 327

<210> 1292

<211> 598

<212> DNA

<213> Homo sapiens

<400> 1292

gaattcggcc aaagaggcct agaagataaa ctgaaacttc tctgccttcc cgctgcaaga 60
gtgaatgagc gatccctctc aactgactca aaatgtttgc ctcacccagg agatggagct 120
ctcgaaggcc ttctctggcc agcggacact cctatctgccc atcctcagca tgctatcact 180
cagcttctcc acaacatccc tgctcagcaa ctactggttt gtgggcacac agaaggtgcc 240
caagcccctg tgcgagaaag gtctggcagc caagtgcctt gacatgccag tgtccctgga 300
tggaataacc aacacatcca cccaggaggt ggtacaatac aactgggaga ctggggatga 360
ccggttctcc ttccggagct tccggagtgg catgtggcta tcctgtgagg aaactgtgga 420
agaaccagca ctgctccatc cccagtcctg gaaacaattt agagcccttc ggtccagtgg 480
tacagcggca gcaaaaaggg agaggtgccg aagtttcatt gaacttacac caccagccaa 540
gagagaaatc ctatggttat cctggggaac gcagatcacc tacatcggac gtctcgag 598

<210> 1293

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1293

gaattcggcc aaagaggcct agaggcactt acaactttaa acttcccttt gagtattgct 60
tttgagatc cccataggtt ttgttatggt gtttccactt acatttgttt caagaaattt 120
ttcagtttcc tttttaattt cttcatggac ccactgggtc ttcagtagca tattgtttta 180
tttccacgta tttgtattcc tcttgttatt aatttctagt tttattccat tgtggtcaga 240
gaagatgcac ctcgag 256

<210> 1294
<211> 300
<212> DNA
<213> Homo sapiens

<400> 1294
gaattcggcc aaagaggcct agggcctccc aaagtgtctgg gattacaggc atgagccact 60
gtgacctggcc atttgccata actttttaatg agagggtagt tccagctaca gattgaggta 120
gtatgtgaat aaggatagaa agtggatata aaagtatttt tgttactttt taagaaagaa 180
ttatcagaag gctcaaattc tgataatttt agctaatagt attctaccta agaagtaaac 240
aaaggccag aaattagatg atatgtccaa ggacatagta aatggggagc caggctcgag 300

<210> 1295
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1295
gaattcggcc aaagaggcct agctagtgtg tcaagtatat tttaattata ctaatataat 60
ctcaacatat ttaacacaca catattttgg ttcattattt atgtaagcat gattacctcc 120
tctgtggtca cttacagttc ccacacactc gag 153

<210> 1296
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1296
gaattcggcc aaagaggcct acacgtttta atctgcagat ggacataagt ggattaattc 60
ctggtctagt gtctacattc atacttttgt ctattagtga tctactacga cgaaaattcc 120
ctatgatttt gtcttcctgt ggtgctcttg caaccagcgt ttggtctgtg ttgctttgct 180
atcttgacctt tccattccag cttttgattg catctacctt cattggtgca ttttgtggca 240
attataccac attttgggga gccctcgag 269

<210> 1297
<211> 577
<212> DNA
<213> Homo sapiens

<400> 1297
gaattcggcg ccgctcgac cttatctttt ggagcaaatt gacatgctgt tttttggtgg 60
ttctgctgtg tctgggataa cctcggtgtg ttacagtgtg gcccggagcg tcttggtgct 120
cgccctgtct cagcagctct gcttcagtgc agtgaaggaa ccgtggagca tgcaacacat 180
cccggcactg ttttcggcct tctgtggcct cttggtcgcc ctttcttacc atctgagccg 240
tcagagcagt gacctatctg tactcatgtc cttcatccaa tgcaggctgt ttcctaaatt 300
tttacatcaa aatctggcag agtcagctgc tgaccctctc cccaagaaga tgaaagattc 360
agtgcaggat gtcttaaaat gggatctcat cgtctgcgca gtggttgctg tcctctcatt 420
tgcagtcagc gccagcactg tattcctgtc attgcgacca tttctcagca tcgtgctgtt 480
tgccttggtg ggagccgtgg ggtttgtaac acattacgtg ctccctcagc tccgcaagca 540
tcacccctgg atgtggattt cacaccccat actcgag 577

<210> 1298
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (147)

<220>
 <221> unsure
 <222> (225)

<220>
 <221> unsure
 <222> (241)

<220>
 <221> unsure
 <222> (273)

<400> 1298
 gaattcggcc aaagaggcct aggaggggtgc agcttgacgc tgggcgggga catctcagca 60
 cagccccagg aggaggggca gatagctaca ggcccccca acccgctcta ggagagcagg 120
 aggggcacgc acaggtcggc tcttcctcc tccaccgag cactccagag agctggagct 180
 gggcatcccc ggttgggtgg tgacctggc tgtgtggcct gcacntgatg cagcatgtat 240
 ntcacacaga gctggccaag ctcttgcgat ctnttctaga gtgagtgaga tcagacggat 300
 gcttcaggc ctgcacacgc ggcagcatga gcagcacgtg accagcgtgg ccctcagccc 360
 tttgcaggct gctgcagtga ggcagggaac acactggact cctggcccaa gagctgggtc 420
 tgccactcga g 431

<210> 1299
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 1299
 gaattcggcc aaagaggcct agaagtggac caaagggtcta cctcatgctc attctgcctg 60
 tttggaagag ctttaagcga gctatgagtt ctatcggtac tttgaaactc agcaccagtc 120
 agtaccgcag tgtttatcca aaactcaaca gaagtcaga gaactgaata atgttcacac 180
 agcagtgctg agcttgacgc tccatctgaa agcattactg aatgaggtta taattcttga 240
 agatgaactt gaaaagcttg tttgtactaa agaaacacaa gaactagtgt cagaggctta 300
 tcccatccta gaacagaaat taaagttgat tcagccccac gttcaagcaa gcaacaattg 360
 ctgggaagaa agctcgag 378

<210> 1300
 <211> 367
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (356)

<400> 1300
 gaattcggcc aaagaggcct aagttaaggc ttgagaagct ctgaataatt caaaagtatt 60
 agaccacac agccttgag agaccttcag aaactaagga ggagttttat attaaggag 120
 acattttagt cagtaagacg atataaccta cttactcgt aaggggaaat gaaggcccg 180
 agaagggaag ggacttgacc gaggtccac ttctgtttcg aggcagaagc cagactaatt 240
 ttcattgctc ctgactccca atcagtttca caaagggtt caatctgtt atatacgta 300
 cattcctgga tacgaggtct tttgatgttc agagtaactg actagttagt attagnagac 360
 cctcgag 367

<210> 1301
 <211> 1006
 <212> DNA
 <213> Homo sapiens

<400> 1301

```

gaattcggcc aaagaggcct aatgtcttcc tatgttccca tatttgagaa ggataggtat 60
tctggagaaa atggagacaa ttttaacagg actccagctt catcatcaga aatggatgat 120
ggacctcttc gaagagatca tttcatgaaa agtggatttg cctctgggcy gaatttttga 180
aacagagatg ctggtgagtg taataagcga gataatacat ccacaatggg tggtttttga 240
gttggaaaaga gttttggaag cagaggtttt tcaaacagca ggtttgaaga tggatgatagc 300
tctggtttct ggagagagtc tagtaatgac tgcgaagata atccaacacg gaacagaggg 360
ttttccaaga gaggcgataa tgacttagac ccagacgaat gtatgcagcg cactggtggc 420
ctttttgggt ctagaagacc agtattaagt ggcacaggtt atggtgatag ttctcaaagc 480
agaagtggca gtggaagtga acgaggtggg tacaagggtt taaatgaaga agtaataaca 540
ggctctggaa agaattcttg gaagtcagaa gcagaaggag gagaaagtag tgatactcaa 600
ggaccaaag tgacctacat acccctctct ccacctgagg atgaggactc catcttttga 660
cattatcaga caggcataaa ctctgacaaa tacgacacta ttcttgttga agtgctctga 720
catgatgcac caccagcaat tctgactttt gaagaagcta atctctgtca gacactgaat 780
aacaacattg ctaaagctgg ttataactag ctactctctg tgcaaaaata cagtattcct 840
atcatacttg caggacgaga tttgatggct tgcgctcaaa caggggtctg gaagactgcg 900
gcttttctcc taccaatttt ggctcatatg atgcatgatg gaataactgc cagtcgtttt 960
aaagagtgc aggaaccaga gtgtattatt gtagcaccaa ctcgag 1006

```

<210> 1302

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1302

```

gaattcggcc aaagaggcct agggagaagg agaaccgcac cagatggaa agggaaagag 60
ccctgcagga gctggaggaa gaaacagcca gacttgaaag gaagaataag acgttgggtc 120
acagtataac agaacttcaa caaaagctta caaggaaatc acaaaagata accaattgtg 180
aacaagcag tccagatgga gccctagaag agacaaaggt taagttacaa cagctggaag 240
cttcttatgc atgccaaag aaggagctgc tcaaggtaat gaaggagtat gcatttgtga 300
cccagctctg tgaagatcaa gccctctaca taaagaagta ccaggaaacg ttgaagaaaa 360
tagaagaaga actagaggct ctgttccttg agagagaagt atcaaaactc gtgagcatga 420
accctgttga aaaagagcat accagccaaa ataagtaggg tactcttacc caaaagacag 480
caagattatt cagtaaaaag attttttgct gtctcttttt catcacccta tttttcatca 540
gactgctgag ctacatgttt ttcatgttaa gattcataaa tccagctctc ctcgag 596

```

<210> 1303

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1303

```

gaattcggcc aaagaggcct aaggaattat agaagagtta taaagttcta ttgaagacat 60
tgagtatagg caatgtctgt aaagaaagag aaagaggcac aaggcaaagt tctcgag 117

```

<210> 1304

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1304

```

gaattcggcc aaagaggcct acgagtctgt tgtgccttct ttttttctt gcttttttgg 60
ctgctccacc tcattggcag tgggctgcat tgcttcatta tgctcttctt ccaatatctc 120
gag 123

```

<210> 1305

<211> 140

<212> DNA

<213> Homo sapiens

<400> 1305

```

gaattcggcc aaagaggcct aactgggtccc caccaatctt ccagaagatt tttaggagac 60
gtagaataact gagaaaataa ggtgagtagc attcaagaat taaggtaagg atcttcatga 120
aaacttgctg gatcctcgag                                     140

```

<210> 1306

<211> 332

<212> DNA

<213> Homo sapiens

<400> 1306

```

gaattcgcgg ccgcgtcgac cagattgact gaaaagtcac atgaagagtt gattgtcttt 60
taatggatgt ttttaaacag ctgacatttt aaattttgat gaaatccagt ttattcgttt 120
gttcttttat gctttgggtg ttgcatccga gaaatctttt cccatccccc cttctcaacc 180
ccacctctcc tgtaacccccc tttcccttgg ccatgatgcc gggggccctt aaccctcttt 240
ccatggaagt cactttacag ctgcatcggt cctcctactc cactgagtgt gggaggccca 300
aacggctgcc cactgacccc taccactcg ag                                     332

```

<210> 1307

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1307

```

gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagacca tgggaggttt 60
tgtttgtaaa atcatagaac agatcctgaa gcagaataag acataccac tgctcttgct 120
cttacccttc cagaagagtt ggccatgact tgattatctc caagacaaca gtgactccta 180
gatgtgtctt cagccctgc cttttgtgac atcatttgca ttttttcaat tgcccaccag 240
agggtggccac tgggttttca ttttgggttg cgtataccta acctaatcc ttctctgatt 300
ccccaaact cgag                                     314

```

<210> 1308

<211> 332

<212> DNA

<213> Homo sapiens

<400> 1308

```

gaattcgcgg ccgcgtcgac ggggcagatc ttcagaagaa cgaagttcag cacagtccca 60
ctggagccag ggagcactgg gactaacttc aaggcttctg attccttgat ataagagtgt 120
gagtcaatct tagactcttt taaagagaaa atgggtcagta acctatcact acaaacaact 180
ggggatgcag ataagtattt gtgaaaaaca gaagtctctg agactgggtc aaatctcagc 240
tacttcaatt accatgggac aaatgtactc ttctgaaact tcggtttctc catctgtaaa 300
atggagatgt agcaccttag agggctctcg ag                                     332

```

<210> 1309

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1309

```

gaattcgcgg ccgcgtcgac tagcgagacc ctgtctcaaa aataaataca tgaataaatt 60
gaatttaact gtgcctaact atagtttacc atgccacccc tttgggggtg gcagtgcagc 120
aggccagaa ccccttgctt tgcaaaatgc agctttttgt ggccccaca cttgcctagt 180
aaccgccgtt ttgttttgtt ttgtgtttgc ttccagaact ccaagactcg ag                                     232

```

<210> 1310

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1310

```

gaattcgcg cgcgctcgac ctaaaccgtc gattgaattc tagacctgcc tcgagtaaaa 60
tggttgaaac ctggttctgt ctgtccctcag ccaggctcgtt ttttttaaata ttttatttta 120
ttttatttta ttgtatttta ttttatttta ttttatttta ttttatttta tttgagacgg 180
aatttcgttc tgttgcccag gccctcgag 209

```

```

<210> 1311
<211> 128
<212> DNA
<213> Homo sapiens

```

```

<400> 1311
gaattcgcg cgcgctcgac acggcttgat aagtattctc ggatattctg caggaatcag 60
ttctgtttct acaaagtcct gtattcccat tcagcatgat atggctgaat atgtgtgtgc 120
tgctcgag 128

```

```

<210> 1312
<211> 368
<212> DNA
<213> Homo sapiens

```

```

<400> 1312
gaattcgcg cgcgctcgac agcaaacata cagtgaacct ggcttttata tttgtctata 60
tagttaactt tattggaaat ctttattttt tcctccagat tagagtctag tttgttttta 120
tttcatcttt aaagacaccc tttagtgtct cctgtatagc aggccttagta gtaacaaact 180
cttcagcatt tgtttatctg ggattaactc catttctctt tcattttgaa ggactgtttt 240
accagctaga gaattctcag argatagttt ttttctttca gcaatttata tatgtcatcc 300
atctgtcttc aggccttcaa ttgatttcta aggagatata agctcctaata attaatgag 360
atctcgag 368

```

```

<210> 1313
<211> 181
<212> DNA
<213> Homo sapiens

```

```

<400> 1313
gaattcgcg cgcgctcgac ttgccttata gcttgtaagg cagaaaagca gaggtaaaag 60
aatactaatt tcgggaattc agccttttgt accctggctc tgccagttct ggctgtgtga 120
ccctgggcaa gtttcccttg cacctcgtgt tccccactgt aatagtagtg tgtccctcga 180
g 181

```

```

<210> 1314
<211> 164
<212> DNA
<213> Homo sapiens

```

```

<400> 1314
gaattcgcg cgcgctcgac gacggcttgg agaaagggtta gaattttttt ttttccttaa 60
ggtttgaaag tcttaaccat ttggtggaa aagtttgggt taatccacg cagagacttt 120
taaacatggt cacacattcg tatttaagaa aggcggttct cgag 164

```

```

<210> 1315
<211> 125
<212> DNA
<213> Homo sapiens

```

```

<400> 1315
gaattcgcg cgcgctcgac gcttagattt atctattagg acttatcatg aaattgttag 60
aaacatccag agaagaaaat aggaatgaag agcattatgt tcctgtttta tcaactcaac 120
tcgag 125

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<210> 1316
 <211> 167
 <212> DNA
 <213> Homo sapiens

<400> 1316
 gaattcgcgg ccgcgtcgac gttactggta agatgcaatt tcttctcctg gccatggtgg 60
 aaaggaggaa gaaggctatt gttctgttgc ttcatgggat atctgcttgg gtaatagttt 120
 tactgatttg gcttaggtct ctgagcaaaa aggggaattgc actcgag 167

<210> 1317
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 1317
 gaattcgcgg ccgcgtcgac ctcggggggc tttcttttat taagatttaa tttctgctac 60
 tttcttcaac aagctaagca aagccaggta tatataattt tcaagaacaa aagaataagc 120
 aggacaagga aatgaaacta ctgaccaccc ttcaattttg ttccactatt taactgatga 180
 gttattgcac attgtaaaaa aaaaaaaaaa tgcctattac aataccacac taccctgtta 240
 cagatcacaa aataaggagg aaggattttc cattttttta acaaaatata aaactgttac 300
 tcttaaacca gataaagagc aatacatgtg cgactaatat tcataaatta acactctgaa 360
 gctaactacc tgctattcaa aggaaaagca tttagaaaat actgaaaaac aggtaaatct 420
 ctacatcacc catatgggac agaaatgcaa agaacactac gttcctcgag 470

<210> 1318
 <211> 981
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (195)

<220>
 <221> unsure
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<220>
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 <222> (595)

<220>
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<220>
 <221> unsure
 <222> (615)

<400> 1318
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 tgggatagaa gcaaacacaa attccttctg tagaaagaca cttttatcct agccctgaaa 180
 taatactctc aaatantttt tctagggcag taagtaccag tcactaanaa taacctatgtg 240
 tgcaaaagaa caaattactc tgaacaagaa ttagtagaaa caacaatgaa gtgaaatata 300
 cctacaaaga cttttttatat tagaattata agacaactat acttattgtg tttaaagaca 360
 taaaaggctg aaaacctctg caggaaacta cacaaagatt tgaaaaagtg tcaaaagaat 420
 ttctaaaaatg gaaagatata atatagaaat ttaaaaactt agtggatggg tggtttaact 480
 aaaaaattgg ttagaatata ttatccagca tgtagcatag ggggttaaga gyttaaacac 540

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tttttttttc tttttttctt ttttttttcc tttttttctc cctctttctt ctttctttct 120
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aaactggcca aaaacttggt ttatttgctc gcccttctag gtcaatatgt acaaactctac 240
tttcttattt ctattggcca gccagtgtac ttttgcttgg atgtttcaga aattatttaa 300
ccattcctct actctcgag 319

```

<210> 1254

<211> 615

<212> DNA

<213> Homo sapiens

<400> 1254

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gaattcgcgg cgcgctcgac agcttttaga aaaggaaaga ggaaaagaac agagacaatg 60
gactcagaaa atgcaaatag tgacatggat aaaggacaga gagaccata ttcgggaaat 120
gcctttctgc ctggtgaaag ctccagttag gatgaagagc ctttagcaga attgtcaaag 180
gaagaattgt gcgccaaaat aaaaagcctg aaagaaaaac taacaaacac ccggaaagaa 240
aacagccgac ttcgacagtc tttggtcatg cttcaagtgt taccacaagc agtcacccag 300
tttgaagaat tggttggtat ggccgaggct ctgcttaagg gtgggggaac catgtctaca 360
tctgcattcca ccctctggag agcaacaaac aactcctcgc cagattcatt tgcctcaaca 420
tgcagtaatt ctaattctaa ctccagtcca ccagtctcct taaagcctga ggaagagcat 480
cagactgatg agaacagtt ccagattgaa aaatggcaga ttgcccggtg taacaagagc 540
aagcctcaga agttttattaa tgatttaatg caagtacttt acacaaatga atacatggcc 600
atcacacaacc tcgag 615

```

<210> 1255

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1255

```

gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctgacctgc agagtgaaga 60
aagctggttaa tagatgtctg acaactaaa gaaagacttg tgttaccaca attcagacag 120
cccggaaatat caagattcat ctttttctact aattgtggca ttcacagatc agaacataat 180
acctgaaaaat ttgccagcac caacagacaa atgtaaacta aaatatcagc aatgtaaaac 240
tgaaattaaa gagggctata agcagtatag tcagagaaat gcagaaaata caaaatcaaa 300
tgttacacat aaacagtctc caagaaacaa gatagatgaa aagtgtgtgc aagatgaaga 360
agccaacaca gatgacctta cgactctgga taggaaagcc atcttacagc aaggttatgc 420
agacaactct tgcgataaac aacagaggct cgag 454

```

<210> 1256

<211> 682

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (130)

<220>

<221> unsure

<222> (143)

<400> 1256

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gtgcgttttc ttctatggat tatttacaat gaataatagt caagtaagcc aagaaatttg 120
taaagccacn gaagtcttta tngccctct ctgtgacaag aactgctccc tgcagagact 180
caacgacagc tgtatctatg ccaaggtgac atatttgctc gataatggag ggacagtctt 240
ctttgctatt tttatggcaa tatgggccac agtcttctct gagttttgga aaaggagaag 300
gagtatactg acctatactt gggaccttat cgaatgggaa gaagaggagg aaacacttcg 360
tccccagttt gaagccaagt attacaagat ggagattgta aatcccatca cgggaaaacc 420

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tgaaccacat cagccttcct cagacaaagt cactcgtctt cttgtttctg tctcaggaat 480
 attcttcctg atatccttgg tgatcactgc agtggttggg gttgtggtgt accgcctggg 540
 tgtcatggaa cagtttgcct cattcaagtg gaatttcctc aaacaatact ggcagtttgc 600
 aacatctgct gctgctgtct gtatcaattt cataatcatt atgttgctga atcttgctta 660
 tgaaaaaatt gcttacctcg ag 682

<210> 1257
 <211> 124
 <212> DNA
 <213> Homo sapiens

<400> 1257
 gaattcggcc aaagaggcct actacgactg accagcaacc tcttttctt ttgtgtttta 60
 tatatcttta aaatatcttg tcagttttgc tatgtatggt cttccattca ccaccgccct 120
 cgag 124

<210> 1258
 <211> 535
 <212> DNA
 <213> Homo sapiens

<400> 1258
 gaattcgcgg ccgcgtcgac gaagaaaatt ctaagtccta ttgggttaaag ggggaaaaaa 60
 agcatctagc tccagcttca ggcactattg aattcaggaa ttttgacaag ccaagggtg 120
 tcactctcca cctctccaca gtggttatct ctacttgatc ctactcaca agcacaccat 180
 gtccaagtgg tggaaaagat ggttcttggc aactccaagc ttacatctca tctcctttta 240
 gaaattctct tcccaactat tccagcaaga attccagatt gcagtctcat tggtagatct 300
 tatagtccat gcacatctcc aaatcaatca tctaattctct ggttgccac tttagagcca 360
 gagggcaggg tcagcccca gaaagctgca tagactatga acggaggcca gatcaggggac 420
 ctcttaccaa aatgtgttgg tggataagca aaatctaggt tcttggtatc aacaacaatt 480
 atagttaaag ctgtcacaga cattcaaacc tgtgtttct cccctccac tcgag 535

<210> 1259
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (35)

<220>
 <221> unsure
 <222> (54)

<220>
 <221> unsure
 <222> (63)

<220>
 <221> unsure
 <222> (74)

<220>
 <221> unsure
 <222> (80)

<220>
 <221> unsure
 <222> (118)

<220>
<221> unsure
<222> (132)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (158)

<220>
<221> unsure
<222> (170)

<400> 1259
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canttgtcac tcanggtctn cctcaaaatg gactgctttt ttaggggatg tgtgggantt 120
gggattaggt tnggctattg ataactggaa nttcaaantg gctatggtn aataaacaca 180
caatgggttta ttctctctca aaaaagagtc tgaaggtagg tacacaaggt ctggtatgat 240
aatttttacga agtcatccaa aaaaacccca taattcttct gtctttcttg tctgctatcc 300
caatacttgg ctgtatcct caaggccact ttgtgggtcca agatgggtgc tggagtttca 360
cctccagttg aatgagtctg agttgtagac taaaaaaagg aaaggtaaaa agttagaaaa 420
gacttcctca aaactgttgt ctcttacctt gataagtagc cttcccagaa acccttaaca 480
cttctactta gatcttattg tacagaactt agtcacgtgg ccacagactc gag 533

<210> 1260
<211> 512
<212> DNA
<213> Homo sapiens

<400> 1260
gaattcgcgg ccgcgtcgac ccaagaagtg cagtggaaaca gctctgtttg gctgaaagta 60
ctcgaccnag gatgactgtg gaagagcaaa tggaaagaat aagaagacat caacaagcgt 120
gcctgaggga gaagaaaaaa gggttaaatg ttatcggtgc ttcagaccag tcacccttac 180
aaagcccttc aaatttaagg gataatccat ttaggactac tcagactcga aggaggggatg 240
ataaggaaact ggacactgcc attagagaaa atgatgtaaa gccagaccat gaaactcctg 300
caacagaaat tgttcaacta aaagaaaccg aacccccaaa tgtggacttc agcaaagagt 360
taaaaaaaac tgaaaacatt tcatatgaaa tgctttttga acctgagcca aatggagtaa 420
attctgtgga aatgatggat aaagaaagaa acaagacaa aatgcctgag gatgttcat 480
tcagccctca agatgaaaca cagacactcg ag 512

<210> 1261
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1261
gaattcgcgg ccgcgtcgac ggaagcggag gaagctgatg aaagcagtga agaagaggac 60
tgcactgcag gagagaaggg catttcagga tcaaaggctg ctggagaagg tagtaaagca 120
gggctgtcac cagctaattg ccagagtgc cgtgtgaatc tggagaagtc tttgctgatg 180
aagaaaagcag ctctccccc tttcgattct gggcattgca cagctgaaga ggtgtttgca 240
tctgaagatg aatctgaaga aagctctca ctgagtcag aggaagaaga ctgagaaaat 300
gaagaggcta ttagaaaaaa gctttcaaag ccttctcaag tgagcagtgg tcagaaactg 360
gggccacaga acctcattga tgagaccagt gatatagaaa atttactcaa agaggaagaa 420
gattacaagg aagaaaataa tgattccaaa gaaacgtcag gtgccctcaa gtggaaggaa 480
gacctttcca gaaaggcagc tgaggccttt ctgaggcagc agcaagcagc tccaaacctc 540
cgaaagctta tttatgggac agtgacagaa gataatgaag aagaagatga tgatactcta 600
gaagagcttg gagggttgtt tcgtgtcaac cagcctgaca gagagtgtaa gcacaaggca 660

tctcgcgag

667

<210> 1262

<211> 734

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (340)

<220>

<221> unsure

<222> (625)

<400> 1262

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gaattcgcgg cgcgcgcgac aattctagaa ctgcctcccc atccaacggc actcacaaca 60
actcgggtgct cccagttaca gcatcagccc caacatctct gcttectaag aacatttcca 120
tagagtccag agaagaggag atcaccagcc caggttcgaa ttgggaaggc acaaacacag 180
accctcacc ttctgggttc tcgtcaacaa gcggtggagt ccacttaaca accacgttgg 240
aggaacacag cttggggcact cctgaagcag gcgtggcagc tacactgtcg cagtccgctg 300
ctgagcctcc cacactcacc tcccccaag ctccagcctn atcaccctca tccctatcaa 360
cctcaccacc tgaggtcttt tctgcctccg ttactaccaa ccatagctcc actgtgacca 420
gcacccaacc cactggagct ccaactgcac cagagtcccc aacagaggag tccagctctg 480
accacacacc cacttcacat gccacagctg agccagtgcc ccaggagaaa acaccccaa 540
caactgtgtc aggcaaagtg atgtgtgagc tcatagacat ggagaccacc accacctttc 600
ccagggtgat catgcaggaa gtagnacatg cattaagtgc aggcagcacc gccgccatta 660
ccgtgacagt cattgccgtg gtgctgctgg tgtttggagt tgcagcctac ctaaaaatca 720
ggcattctct cgag 734
```

<210> 1263

<211> 764

<212> DNA

<213> Homo sapiens

<400> 1263

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gaattcgcgg cgcgcgcgac aagggtcctt tatactgtcg gtctgtggga tctgccaggt 60
tatcaatttg acaccttaag ccatctcact caagaatagt acagatgtgt ggaatatgcc 120
aataccttta actccagaca tcatgttctc aagataaaag ctttttaaaa caaaaagcca 180
tcgtatgtct catcaacatg aaattggaat gcaaaattaa tactgtcgag gatttccctc 240
atatcccatg ctgtttaact atctattcta cagtcctaga atcaatcttt tttttaggag 300
acaaggctct tgttacgaag gctggagtag agtgggtgcc tcaaagctca gtgcagcctc 360
caactcctgg gctcaatcct tttgcctcag cctccccctc ctgagtagct gcaaccacag 420
gcacacgccc caataccag ctagttttta aatttttgtg gagatgaggt gttgtttact 480
ttcttgccca ggctgggtct gaactcctgg tttcaagcaa tacaccacc tcagtgtggg 540
gattgcagac ttgagccact gcacctggcc tggaaaccaac ctttatggct atcaatactc 600
ccatcagtta actgtctcag gtatcataat atcccttctt atatgtatca aaactcatac 660
tgaacaatga gttctgggtt gcaaaaagta catattaaaa ttttaaatgc tgggcacggg 720
ggctcacacc tgtaattcca gaactttggg actacaggct cgag 764
```

<210> 1264

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1264

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gaattcgcgg cgcgcgcgac ttgagattgc tattaagatc gtgctctact gtgatgattt 60
gggtttgttt gataatcaga aaaaagcata tctttttggg tggttcagcca cactgctttg 120
gtgtcacacac tgcacattgg tttcacagct gcaggacaag ttcgagcacc ttaaaatcat 180
tcaacaggag gagataagga agctcagc 208
```

<210> 1265

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1265

```

gaattcggcc aaagaggcct agtcgattga attctagacc tgcctcgagt gcgatgttgt 60
tatctgacag ttctccgtcc ctactggcct ttctcctcgt cttcatattt gtacgggtaca 120
agctcagag                                     128

```

<210> 1266

<211> 472

<212> DNA

<213> Homo sapiens

<400> 1266

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gaattcggcc aaagataggc ctctttggcc gaattcggcc aaagaggcct aagaattcaa 60
tcgacgggtt agggctggaat cggagctgtt gtattgcctg ggggtgtctac tgcagatatt 120
tcataaata aggatgatga agaaaactct atgcacacta cgggtgtgtt gttttctagc 180
agtgacaagt tcactttgaa tcaggatatg tgtgtagttt gtggcagttt tggccaagga 240
gcagaaggaa gactacttgc ctgttctcag tgtggtcagt gttaccatcc atactgtgtc 300
agtattaagg taaacatcct taaattgagt taacaaatat gtactgaatt tttatttgtt 360
tttagtagta acatgagctc ccagttctca caattaagta ttatgattat taaacatatg 420
tgacagtatt taagcacttt aaatactgct tttaagggtt tcctatctcg ag 472

```

<210> 1267

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1267

```

gaattcggcc aaagaggcct acgaggtggg ggagttttatt aaattaatgt taattaagct 60
agtgttggtc aaatatacca tataaaagaa taggttgtga ttcatctcta actaaggaca 120
gactacatat gaatgtccaa atggggctaa ttgtctttga gctaatatcc tacattctcg 180
ag                                     182

```

<210> 1268

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1268

```

gaattcggcc aaagaggcct aagtttgcct agcacatcca ctcccataaa aacaaatcag 60
aaaccccaaa ctaattatca aatactgact tatagaatac ctattcttga aataatggag 120
acaacacaca aaaaagcagg aaacagaaac acacgcaccc agacactcga g 171

```

<210> 1269

<211> 797

<212> DNA

<213> Homo sapiens

<400> 1269

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gaattcggcc aaagaggcct agattgaatt ctagacctgc ctcaatttat ttttaaaatt 60
cacttacgta aatggaatgt gcttttactc ttcttaaaaa agcagctttc atatcacacc 120
cttgtttaca gaaaagctac atgtgctgca tgetgacttt gacacttaag tagctttctg 180
gatcaaaatg gcttctagat actaaatgcc acttaattca gcactattct tggtttgtct 240
gtataagtaa cactttaaaa cttagcagtc tggaaagaca gaactttact aacaaagtag 300
aaagtgatgt caaagtatct tccacaaaag attgtactgg taggcggttg acaacattct 360
gttcgatcta ctttcaaatt tctagagaaa atcatttttg aatactactg tactgattct 420
tggccttcgt tgtctctaaa agtgctgatt ttaacattat cttaaaaactg tccagtttga 480

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<400> 1274

gaattcggcc aaagaggcct acttcagctg tcttggttgt agcctctcat tccccaaaaa 60
cagagaagga aataaatatc caaattcatc tctcacctga tgcgggtcct ctccacgcat 120
ctcgag 126

<210> 1275

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1275

gaattcggcc aaagaggcct agggaccatt tagttacat gaaaagcagt tcctattgga 60
aaggcaagtt aaatgtttct tttttgttgt tgttgttgtt gttgttgaga gagtctcagt 120
ctgtctccat ggctagagtg cagtgggtgca atctcagctc actgcaacca cagcctctcg 180
ag 182

<210> 1276

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1276

gaattcggcc aaagaggcct attttttttc ccctgaacta ttggaattct tatgggcttc 60
tataacttat aaaacatata catgcatata aattttccag tgaacattac tcgag 115

<210> 1277

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1277

gaattcggcc aaagaggcct agatggtttt gaactggaac tgtggaccca tccacagacg 60
tctatggggt ccagtgtgtg ttacaatttc aacctgggaa agccattctt catcttcctg 120
tccactatgg tcagaagcta aactgtcgta agacccatgt cgagtaatgg gccagggact 180
tccaggggga accaggccag caagcaggaa ctgataatac tgtactgcat ctgcagcgag 240
gagcagaggg tggtttgcag taaacggtgg ctgcaattca ttccattgag gggttctaac 300
cagagtccag ctggctcgag 320

<210> 1278

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1278

gaattcggcg ccgcgtcgac taaaattttt caccagagta aacttgagaa accaactgga 60
ccttgagtat tgtacatttt gcctcgtgga cccaaaggta gcaatttgaa acatgaggag 120
tacgattcta ctgttttgc tcttaggata aactcgggtca ttaccacagc tcaaacctgc 180
tttgggactc cctcccacaa aactgggtcc ggatcagggg aactaccaa accaacagca 240
gtcaaatcag gtctttcctt ctttaagtct gataaccatta acacagatgc tcacactggg 300
gccagatctg catctgttaa atcctgctgc aggaatgaca cctgggtacce agaccaccc 360
attgaccctg ggagggttga atgtacaaca gcaactgcac ccacatgtgt taccaatttt 420
tgccacacaa ctcgag 436

<210> 1279

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1279

gaattcggcc aaagaggcct acacgttttg gttttgttat cctgggtcac atcctccacc 60

gtggtgagga gaggtggtga gggcagcgtg ctggtgtctt gctctccact gctgtgtttc 120
 cttctctgct tgacagcagc aacgaggcca ggcctgaaa acatggagaa caagctgtcc 180
 ccgttggtcg aggatgtctc atcactcgag 210

<210> 1280

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1280

gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagat ggggtgctgcg 60
 gctctcacgc ccgtttcaca gatgggaacc tgcacacag gcatgcagct ccgggttggc 120
 tcctcacccc ctccatgctg gcttgacacag gctaccagca tgggtgtgtac acgtgtgtgt 180
 gtgtgtctgt gtgtatcatg gtgtgtgacc tgtgtctgtc tgtactctg ttatttatat 240
 ccctttgctg gttgtgctaa aagcatagat ttaaatcata caagatgtaa tttagatggc 300
 tcactcgag 309

<210> 1281

<211> 322

<212> DNA

<213> Homo sapiens

<400> 1281

gaattcggcc aaagaggcct aggaataata attgttgaag agggctcctgc attttcattt 60
 tacataaggc cctgtgcatt atgtagttgg tcctaagaac atatatattt gcaacattaa 120
 agatcaagat tttctttaat ccaaattgtga gggaaaaatg aattactatc cctataactg 180
 tacttttttt tcttttttct tccttctttt tttagacacag agtctcgtc tgtcaccagg 240
 ttggagtgcg gtggcgcaat ctacagctcac tccaacctct gcctcccagg ttcaagcgat 300
 tctctgtct cagcctctcg ag 322

<210> 1282

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1282

gaattcggcc aaagaggcct acacctgttc ccttttactt ttttaagcgc gcctgctata 60
 aaatatgaaa ttgcctgcat ggctccatt catggatcct attacatttc tatctgccag 120
 tgtaggttgg tgcagtcaca agacaatgct tcaggagaaa ctcgag 166

<210> 1283

<211> 346

<212> DNA

<213> Homo sapiens

<400> 1283

gaattcggcc aaagaggcct aattgaattc tagacctgca cgacacacac acgctctcca 60
 gtcccgggac tggagagcgt gtgtgtgtcg tgcaggcaga atgagtttgg ggaggaagcg 120
 ttgagagtgt ccaggaagaa ttgtgtcttt ttggagaga ccggaggtag gtgaagggat 180
 cctgaaggca gagactgtgt tcaggtggca ctgttttttt ggggggcggg gggggcfaat 240
 tggtagggcc ccacagcagt gaaaaggatg tcagaagtgg agtgggatcc ccgagcgagg 300
 tgtcagtgtc tgtggggggg ggataaatcc agtgcggtta ctcgag 346

<210> 1284

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1284

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ggaagaaaga ttatgaaaaa tggagaatgg agagaaaaga tctaacgtag ttttnactgg 600
agttnatagag tgagnatagg gcaaacatag aacagagggtg atatttgaag aaataatgag 660
tgataatatt ctagaactga ttaaaaaacac tagcctgcag tttcaagaag cctaacaaat 720
cccaagcagg ataaataaaa tctctaattct agatacatca aagacaaact tcagaccaga 780
gacaaagaga aaaatcataa agatagctag agaaacatta gaataccttc aaagatacaa 840
tagtttagatt gacagttgac ttctcaacaa cagtgggaagc cagtagagtg ctatcttgaa 900
tgttgatgaa ggacaataac tgcctaccta ggattctaaa cccagtgaaa atatatgtca 960
gaatgagggc taaaactcga g                                     981

```

<210> 1319

<211> 497

<212> DNA

<213> Homo sapiens

<400> 1319

```

gaattcgcgg ccgcgtcgac gtcgcctggc taatattttt aatttcttgt agagacaggg 60
tctcactatg ttaccaggc tgggtctcaa ctcccgact caagcaatcc tcctgccttg 120
gcttcccaaa atgttgcgct tataggcatg agccactgca gcttggcaag ggaaaccttt 180
tatctagaaa ctgccgtgct aagataagcc atataagtaa gaattttttt tgagaatata 240
agaattatat ctaattactt gaatgtgctg aatttcagta acttttggtt ctgcacaatc 300
tgtcaaagat aacagaatat attaggccca tagcacaaga gagaatatgc ttccaattat 360
ttaaatgaaa tggtttttaa atgagtgaat aaaatatcat aaattgtcag aaaaagtaac 420
ctaataaat gaacaaatac ctgaactcct aaaaaggcca tcacgatgga gttgatgggt 480
ccgggatgac cctcgag                                     497

```

<210> 1320

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1320

```

gaattcgcgg ccgcgtcgac gagactgtgg ttgaatgaca gcgccttttc tgtttgtaca 60
tataaagcct gattggactt ttgcagatcc tggttttcta attatttttg ctctacctct 120
ttgtggctta ccttgcttag ttttagaatc atcatgtaca gggattttac tttctctttt 180
tttctcgag                                     189

```

<210> 1321

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1321

```

gaattcgcgg ccgcgtcgac tgcattgaat tctagacctg cctcgaggag agaactggga 60
acgtaatctt tgagccgaag ctgacaggat caattatact ttatctgata gagaaagtgg 120
gacaagtcat gtggagagct ggttctttag gaaaattata attggtggca aatgtcaact 180
gtgtctggag atagggctac tcgag                                     205

```

<210> 1322

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1322

```

gaattcgcgg ccgcgtcgac ctgtgcagtg agtgaagaca gagaaaagtt ccaagagaaa 60
ctccttcttg ctagagaact agaaaagatg atgaatggga gagggacaat ggggaggggt 120
ggatatcttg taatttttct tctctctcag ctctgcctca aagcaagccc caatcctgag 180
tctgcacacc tcgag                                     195

```

<210> 1323

<211> 475

<212> DNA

<213> Homo sapiens

<400> 1323

```

gaattcgcgg ccgcgtcgac tggggctctc aaacacatca aagcctgcta agtctccaat 60
tctccctgtg aagcaagaca cccctgtgtt cagtggcatt tggcaaggat cctgaggtca 120
cagcctgggt ttgtgatgtg gtgataatga ctctaagtag tgaacgcca agattttata 180
ttctgcctgc aaatcatgat gggttctaata gacacagcat ataaaagtgc tcaagtattg 240
ctttgccacc tccactgctc attaacttaa cttggtagga gtttcttgat ggaagacaat 300
caaacatttt tatgaatgag tcacaaatac tatcacactg attctttggc aaatataatt 360
cttattgttt tataagaaaa cagtcatcac ctgcaataga ctgatgtttg tgctctcttc 420
acccccaacc aaatttatat gttgaaatgt tgaattcta acccctaggc tcgag 475

```

<210> 1324

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1324

```

gaattcgcgg ccgcgtcgac aaaccgtcga ttgaattcct gctgattccg tctgaacttc 60
accaaggtga tccagctgct cttgcatctg gttcctggta acagttacat cgtattctaa 120
cttatcatat tctctccatg ctctgtccaa ttcggcagtg gctcgag 167

```

<210> 1325

<211> 786

<212> DNA

<213> Homo sapiens

<400> 1325

```

gaattcgcgg ccgcgtcgac cgctgagacg gtttggcggg gagtctctgg ccagggggag 60
ctgaaaaggcc cgcaaccggg gaaacgtcaa aacaaacaga aggacttggg attccggagc 120
agtcgccccct atcgctgctc ctgcagttgc ggacgccacc gaccccgccg ccggaggact 180
gggcactgaa aggcctctag gcctaggcgc ggcccgcgga gccagacgtg ttgctgccgt 240
gagtaaaacg agcgccctct ccgcactcgt ttacaaatta aaatggagga aatttcgttg 300
gccaacctgg atactaacia gctagaggcc atcgctcagg agatttacgt agacctgata 360
gaggattctt gtttgggatt ctgcttttag gtgcaccggg cagtcaagtg tggctacttc 420
tacctggagt tcgcagagac tggtagcgtg aaggattttg gcattcagcc agtgggaagac 480
aaaggagcgt gccgcctccc gctttgctcc cttcccggag aacctgggaa tgggcctgat 540
cagcagctcc agcgctcacc tccgggaattc cagtagctgc aaaatgagag tctgaaagtg 600
gccaggacaa taacatagac tggctcctgtg gcttcgagga gtaagctaag tagaaaaaag 660
tagaaaaatc agacaaaagt tttaattecc ccttgaagat cctagcattt aaaaacccaa 720
agtggaataa ttaggaatcc tttttttaa gtgtattacc tggagcaagc tcagaagccc 780
ctcgag 786

```

<210> 1326

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1326

```

gaattcgcgg ccgcgtcgac ctatcctagg taatttcagg tactttctct tatgcaatta 60
attttattaa ctgatttctg gtctatctcc agagataaaa taccattcct tcacaactgt 120
attgtctgga agcccatga gatggttaatt ataggccttc tactagccag cagttctctc 180
tggatactgg catcagcagg tctccttttt cttgtgctgc ttggacaggt acctaccgt 240
ggcctcttca gtggccacaa tcctcagtec tcacctgctg gtttggagac tcatgagcac 300
cccaggcagc tcaagctgaa taaatagctg caactcgag 339

```

<210> 1327

<211> 299

<212> DNA

<213> Homo sapiens

<400> 1327

```
gaattcgcgg ccgcgctcgac aataacccaaa atatagatat tgcaggctag agctgggcaa 60
ttattcaggg ggagggtgtgc tgttgtgtctt gtttaaaacc aaagcaattc ccactgtccc 120
tgtgaaattt caaacctctc ccatataatt cagtgcatt aatctgaatg gcactctttt 180
ggcttaatca tattttgcct tgtttctttg ttaactgttt gagtttgat gagtttgatg 240
ggctttctcc aacaaatgat cctttcccat ctgtgatttt ctctcctgta gacctcgag 299
```

<210> 1328

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1328

```
gaattcgcgg ccgcgctcgac aggtccccaa ttaattcata attagaatat ttcgtgtttt 60
tccagtataa cagttctata atctttgatt ataacctttg tgtaaattcc tataagtatt 120
gagtcacagg agacacacat cttttcaggc attacatata aaataaatat taaactagac 180
tccaggaaag tggatcaat tcacattccc aatagcactg tcccaatggg gctaatttat 240
ctccttttta atctcagcgt atttcagtt ataacatacc atctttacct cgag 294
```

<210> 1329

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1329

```
gaattcgcgg ccgcgctcgac cactaccgta gttattttta agatgattgc agggagggtt 60
ctgctgttcc tggctcgttt ttctgtcttt tcgcagggtg cagttttggc ctctggggct 120
gttcctgagg ctccgggtgc agatcttgct gcggctcgtg ttctggggct cgag 174
```

<210> 1330

<211> 476

<212> DNA

<213> Homo sapiens

<400> 1330

```
gaattcgcgg ccgcgctcgac ggggtgatgtg tgatcatgtc aatccaaaca gcagacacga 60
aagctcagag gaaataacgg cacccttggg ctctgatgta agactggctt tgggggaggc 120
cgtgcacgaa gaaaaggata ggaatatcac tcttctcctg aggggaacac ggacagacat 180
ggaaggccaca tgaactgaag aaatccatca gagtaagagg aatgtcaggg gcaatacact 240
gaaaagggca ggtcaggcag agaattgtga aactttaatg ccaggctaag agggttcagc 300
ctctcctggg tttgatccag gaggcagaca gcaggacagc acctgggtgat tttcaaacgg 360
gtaaactcct agtgttcagg aaaactcaat tccaatccca agtacagtcg gtaattttta 420
agcacatgct ataaaggcat agtttcagca agtattcaat tcaccaaaca ctcgag 476
```

<210> 1331

<211> 749

<212> DNA

<213> Homo sapiens

<400> 1331

```
gaatgctgca gcttgatctt ggggtgaaag aatagaatgc agagctatca ctttatatcg 60
ttcagaataa aatcttctat catttgatag aagatcatat aactgctgaa tatgagcaag 120
tcctggtaaa aagatcaata ctgctccttc aatattttctg aattggggac ttttatctaa 180
gtatgcaaga agttccaaaa tgagatccag gttgatttta tgaggattca tgtatagaat 240
agcatgctga gtgcggctgc tgtacttttg gtaaaatgga tttaaatcag catgtgctcc 300
agtctgaact gggatgtatt cctgatattt ttttattccc cctgctttgc ttgtaacatt 360
aatgggtact tcttcttctt cttccagaaa tttctgacaa tattctgagt ctttttccag 420
tacaaagcct gtctcttctt ttatatcttc aagatgaaaa acctcaacag gataacttct 480
```



```

tcctgaaatt ctgagaatgg ggcagtggt gaaatatgta gaaaattttt cgctgtccac 540
agtggcactc attagaatca agtgtagatc agaacgtttc tgtaaaattt ccttcaagat 600
aattagtagg aagtctgact ggacacttct ttcatgaacc tcattctaca taacatgaga 660
cacattactt agaagaccat cttcttgaag tttccttagc aaaaccctg ttgtacaata 720
gagtaacctg gtagattcac aagctcgag 749

```

<210> 1332

<211> 387

<212> DNA

<213> Homo sapiens

<400> 1332

```

gaattcgcg cgcgctcgac ttacaataga aaacactaat tacagtaatt aatgagagta 60
tggttaaata aatcatagta aatccttgta ttggaatact attcagcaaa ttaaagggct 120
atgtctacat aataaaatga tacagaaaaa tgtccaggat atcgtaatag aaaaaaatct 180
gcacacaaga gatttttaagt caattttaaa caatattaag tctgatttta tttatgcaca 240
aaaataaaag ccagagtggc atcaccaaaa tgggagaata gaaagctctg gattctcctt 300
cctccaacag gcagtgtgct aataaacatc cctgtacact ccccatgtgt atatacaca 360
atatttctct aagatagttc cctcgag 387

```

<210> 1333

<211> 698

<212> DNA

<213> Homo sapiens

<400> 1333

```

gaattcgcg cgcgctcgac gttattttca tcttatatct ttcagtacac taattctctc 60
ttcagatgtg tctaacctgc tatttaaact cattcacttg agttaatttt acttactgat 120
tttctcagtt ctagaattta tatttgttta ttttagttt ccagttctct gccaaaaatc 180
tgtcttgtct tttatccctt tgaatgtggt aagtataatt atttcaaaag tctgtatctg 240
agaattccaa tatctagagg ctggttgaac catcttttct ttttcttgat gttgtttgtg 300
tatctgtttc cagttgcttt tgattataag ccagacattg catttgcaaa ctagaacaa 360
tttgtgacct tacatgatac cactttcttc caggaaggat ttacaattct gccagatgcc 420
taggggcact agcuatthag gaacctcaa tctaatttta gggactgaca tgattcaaag 480
ctgactctga gcctcagtga gagtatgtct actcctggtt aacccttgct cctatgggtg 540
agcccttcag ggtcttgact caaaatgagt tatgttcate aggtgtcccc tccttagggg 600
ccatgggac taatctctgc cccattact cccactagcc tgtcaaaagg gctgcttagg 660
ttttagcagc ttcctgcaga actggcta atctcgag 698

```

<210> 1334

<211> 569

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (53)

<400> 1334

```

gaattcgcg cgcgctcgan ctggtggatc atcttaggtc aggagttega gancagcctg 60
gccaaacatg tgaaatccca tcaactactaa aaatacaaaa aattagccag gtgtgggtgt 120
gggcgcctgt aatcccagct actcgggagg ttgaggcagg agaategctt gaaccaaga 180
gatggagggt gcagtgaacc gagattgagc cactgcactc cagcccgagg aacagagcaa 240
gatttgaatg aaataagctt ctacagtctg ctcatgacat tattggtctt tgagaaataa 300
gagttcatct agttacgtg aacttccaaa ggtggacacc attacattgt atattaaaat 360
acacacacac acacacacac acacacacac acacacacac acaaatttgt taatataacc 420

```

acagccctct caacttagga gctggagttc ctacatagct gtacactctg aaggcatcct 480
gcctgtgcca gtacctggac tgaggcaccc ccgtaaagaa ggctgtctgc tctgacagca 540
tgtggactac atctgtaagc tgccctcgag 569

<210> 1335
<211> 571
<212> DNA
<213> Homo sapiens

<400> 1335
gaattcgcgg ccgcgtcgac gattgaattc tagacccttt cttccccac cttcaaacct 60
tctccgccc cctgtctttc ccatgggcat taatggcggc tccatttact caggccagaa 120
ccagaagagc cagcttctact ctctacacac ctctacacaa tctgactaga aatcctgttg 180
accctacctt caatctgtgt ctaggatgca acacctcaac atgtccacac ccccttcat 240
ccctcacctg aacacctagg tctccctgcc ctccctaccc tcccagtcgc tgggtttccg 300
tacagcagcc acagggatcc tgtcgtttct gtgctccaaa ctgcacagcg gtcctcagt 360
ttacttgaaa taaaacgcca aagtccttac aatggctgca gagccggaca acccaactggc 420
ctgacctagc gtctgacctg ctctccctt cctctgttag ctgcattggc ctctgcaccg 480
gctgtgtctt atttgtaaaa cacccttcc aggcatttcc aggaactgaac ccttcagctc 540
tttcaaatct tctctcccaa gtcacctga g 571

<210> 1336
<211> 370
<212> DNA
<213> Homo sapiens

<400> 1336
gaattcgcgg ccgcgtcgac gatccatctg tcttccgcac aggacaaaca ggatgggttca 60
atggggatgt ggtgggaatc cccaatgtaa gagttaaaga ggaaagaaac acaaatgtg 120
gcttaacagt taaagacaga tttattgtag agaaaataaa cctgagaggg gcttctggcc 180
gatttcagtc aggagcactt tctcttacag actaagagta tatattggtt ttaggggtgaa 240
ggggcttatt acaagcttgg zatgttctt tgtgggggag aagttttacg gtggaggttaa 300
aatgtctctg ggcagagggg agcttatctt ggggctgaca tctttccggc cagaagaggt 360
ttatctcgag 370

<210> 1337
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (27)

<220>
<221> unsure
<222> (320)

<400> 1337
gaattcgcgg ccgcgtcgac gacctanaaa gtgaaagtag acagatttgg gtagtgcag 60
caggctaatt aatgatccca ggtgggctgg agtgttctgg ttacattttc catgggtcca 120
gccctagagc agagaccatg ggcatcagcc tgcccttcc cattatgtgg ctcaagcacc 180
accacgtgcc aaagggcggg aacattagat tccccaccg ctgtaacatc tgtaaattcc 240
acagtccata gaatcaaat ggaagagaac ctcacgtttc tgattgccag tcagaaggaa 300
tttatttttg aaacccaatn ctcgag 326

<210> 1338
<211> 617
<212> DNA
<213> Homo sapiens

<400> 1338

```

gaattcggcc aaagaggcct aaaaggcata gacaacaaaa gaaattttat tgagaggaaa 60
acacaagtc ttaaaactgca aagatgtttg ccaggatgtc tgatctccat gttctgctgt 120
taatggctct ggtgggaaag acagcctgtg ggttctccct gatgtcttta ctggaaagcc 180
tggaccaga ctggaccct gaccagtatg attacagcta cgaggattat aatcaggaa 240
agaacaccag tagcacactt acccagctg agaatcctga ctggtactac actgaggacc 300
aagctgatcc atgccagccc aaccctgtg aacacggtgg ggactgcctc gtccatggga 360
gcacctcac atgcagctgc ctggctcctt tctctgggaa taagtgtcag aaagtgc 420
atacgtgcaa ggacaaccca tgtggccggg gccaatgtct cattaccag agtctccct 480
actaccgtg tgtctgtaaa cacccttaca cagggtcccag ctgctccaa gtggttctctg 540
tatgcaggcc aaaccctgc cagaatgggg ctacctgtc ccggcataag cggagatcca 600
agttcacctg tctcgag 617

```

<210> 1339

<211> 792

<212> DNA

<213> Homo sapiens

<400> 1339

```

gagagtctca ctttgtcacc caggctgcag tacagtggcg cgatctcggc tcaactgcagc 60
cttaacttcc cgggctcaag cagtctccc agccctaagt aaccactaat ctattttctg 120
ttctctctc ttaatttttt atattttatt tgcctctgaa gtttctgctg gttccccagc 180
tatgtttctc tccacccag ggtcaactct ggggaggaga gattcaagga ggtacctgtc 240
tgctgcagaa cagtccccg acctgaccca ggggagttca tccagcagca gacagacta 300
acgaggcctc tggggcctgc cattgccagc tactctgtcc acttggttct tctcatcaca 360
tatggcacat tcacacattt gatggagacc attcaaggcg ctgagctgct gtgaggtcat 420
agcctctgcc gtggcagcct ggctgcagct ctagaatagg atgaagcagc tgtcatgcgc 480
tagaagaacc agacttgga gcagcagagc agtttgctc ccagggtccac agatgcttgc 540
ttgaatgagt gtctgagctt caggttcttt tatctgtaaa atgggtgata tcaactttac 600
ctttcatggt ggttgtcaaa attaaggtaa cagaagggaa aacacctggt gttcaataaa 660
tgtaacttg aaggggtgtc tttgtttgt ttttctgtga ttatgggaat aaattctgat 720
tctcgattt ccaggtaaag atggaggatt gaacacctac ttttgcttcc tctgaaaacc 780
ccatttctcg ag 792

```

<210> 1340

<211> 588

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (44)

<400> 1340

```

gaattcgcgg ccgcgtcgac ttcagtttaa gaaatgtata gtcncaatct aggaacatc 60
cctgtggagg ttcaggagg tggttgggtc tgagggtctg ggttctgag ggtccagagg 120
actgatggaa ctgagagcgt cctgagtggt ggcagggtgt ttttaggctt tgggagtggg 180
taagtcttca ggagaggagg tgggtgtgaga agaggagaga cggggatggc cgagattcag 240
cctgcaagag ctctgcttgg aaggaaaagg agccagcaga aaggactgga aagagtagtt 300
ggaggggcag gagaagaatc aaggatcatgt gccaccctgg aagccaaggg aagaccatcc 360
aggcatggtg gggacagctt ggtcagatgc cactgagcct caaggaagct ggagaccgag 420
gattagtgtc ggtgacatgg aggttttcag cctttcatgg gcaaggcagg agcaggtaag 480
gagggaaaagt caactgagga gtagagaagt gtgtgatgac tcctggaaga agcctgggac 540
tgcaggggga agacaggagt ggctgaggga gaagagggat aactcgag 588

```

<210> 1341

<211> 628

<212> DNA

<213> Homo sapiens

<400> 1341

```

gaaattecgc gccgcgtcga ccgcggccgc gtcgacttga attctagacc tgcctcattt 60
tcctatgttg tgtaaggct ggctttgcat ggtgacgaag gacgcgtctc cctcctgtgt 120
gtaacaggcg gttctactgt acactgtatc aaagttagc tgcagtgcgc tatttgcac 180
aaattccagt tgcggtgcaa gtctttgcaa gcctgggtct cgtcattccc gacacacagc 240
cgtcaggctc gcagcccggg cagcgggtga gctcaccag caccagccag tgcggcttct 300
gccgctgcga ggagggcggc gtggggaatg aggtcactat gtcaggagct cgtctcagc 360
aggagcctct cctgcgctta caacacaact ccaatcgac cgagaagtgg gattcatggg 420
atctgggggg tggctggttc ctccctgtt tcttaaaaat gtctacggct aagatcagca 480
aggtgaaaat gaatcacgta tctgcataaa aatgtccttt tcattgcact acgggtgcca 540
cgctcattgt gaaccccagg ctgaatcact cacgtgtaca cctgcggaca tgcatttaca 600
caccgacaca cacaccact aactcgag 628

```

<210> 1342

<211> 280

<212> DNA

<213> Rattus sp.

<400> 1342

```

gaattcggcc aaagaggcct accattaccg ccaagagccg ccgagagccc tagcggacgc 60
gcactggagc ctgaccggcc gcaccatgag actcctcccc cgcctgctgc tgcttttctt 120
gctggccttc cccgcgcgcg tgctgctacg aggcggcccc ggagggtcat tagctgtggc 180
tcaagatctt acagaagatg aagaaccgt agaagatcca ataatcgagg atgaggatga 240
tgaggctgaa gtagaagaag acgaacccaa cagactcgag 280

```

<210> 1343

<211> 569

<212> DNA

<213> Rattus sp.

<400> 1343

```

gaattcggcc aaagaggcct aagaccagcc tcgaatcgcc cagctcccca gcttcgtcga 60
ctcacagccc gcctgacccc ctccgacctc ttccgccaca tctcccaaca ctccaacttc 120
caacaacaat ggcaaaagtc ggattatgag ctggattggg ggtctttcta atatgctcaa 180
gcgtcatctt ggtcctcttc gccagctct ctcaagccac gggcggagca acggttctgc 240
ggcatcttca aatgtccacc attgacacta caggcctagg cagccagctg gcctcgtctg 300
gcgtcgatac ctctccctc tacggctcag gttcccgatc gggcgacaac acgggtcttc 360
gccagtacta cagctacggc ctctggaacg cctgcgaggc cccaccaag tcgggcacca 420
gcgacgtcta ctgccagggc gccaaagttt gccgcaaat cgaacctac aacgccatcc 480
tcgctgatgc cccatcgagt gcccaaaccg ccacgcgcaa ctgcgttggc aacaccaact 540
ttaccaagaa caaggcaggc accctcgag 569

```

<210> 1344

<211> 547

<212> DNA

<213> Rattus sp.

<400> 1344

```

gaattcggcc aaagaggcct agtcagtact tcaccccagg aacaaactcc tttgcattgg 60
gattcagatt gctcttcacc acaagatctt ccagagaaga gccatcactg ataacaaggt 120
cattaaactg gtcttgatt tggtecatag tttgtgggag atctcgggct ggaataaacc 180
attcatgttc ttcttctct tccagcattt cttggaaaca gcgttcaata aattcttctt 240
cccacaactc ctcttctatt tgtctgttga attctcttct attttccatc cacatgtact 300
ctgcaaagtg attatctct tcatgagaat gaccgttaat aatcacatcg tcattgatga 360
tgcttgggct agtactgctg cgacttggat ctttcatggg tgggttctgt tgctgttttt 420
aaccagtgac acggcagcgg ggacggtagc caacgaatcc tgtcggcctc cgcggatctc 480
cacaggcagc gccgctcccc cgtctgacgt gcgctttgce cgcgcctctc cttctccctg 540
cctcgag 547

```

<210> 1345

<211> 389

<212> DNA

<213> Rattus sp.

<400> 1345

```

gaattcggcc aaagaggcct aggcgattgc ggggaccgtg ttgcccgcat tccccgtcgc 60
ttcctgcggc cgaaggccca gactgggtcg ggggaatccg gcctaggcgt ccgcgtcgcc 120
cgggtgcgagc gggatggctg cggagaaga ggacgaagtg gaatgggtgg tggagagcat 180
cgctgggttc ctgaggggcc cggattgttc tatacctatc ttagactttg tggagcagaa 240
atgcgaagtt tttgatgatg aagaagaaag caagttgacc tatacagaaa tccatcaaga 300
gtacaaagag ctggttgaag agctgttaga aagttacctc aaagaaattg gaattaatga 360
agatcagttt caagaagcac gcactcgag 389

```

<210> 1346

<211> 581

<212> DNA

<213> Rattus sp.

<400> 1346

```

gaattcggcc aaagaggcct acgaggggaa ccgttgggcc cgagcgaacc gtaccgagcg 60
cgggcatcgc agagcgcgag tgcggagctc ggagcgcagc acgatgggag gggagcagga 120
ggagggagcgc ttcgacggca tgctgctggc catggcgagc cagcacgagg gcggcgtgca 180
ggagcttggtg aacacettct tcagcttctc tcgacgcaaa acagactttt tcattggagg 240
agaagagggg atggcagaga agctcatcac acagactttt aaccaccaca accagctggc 300
acagaaggcc aggagagaga agcagagctc gcaggagaca gagcgtcggg agaaggcaga 360
gcgggcagcc aggtgggcca aggaggccaa ggcagagact cccgggccac agatcaagga 420
actgactgat gaggaggcag agagactgca gctggagatt gaccagaaaa aggatgcaga 480
gaaccatgag gtgcagctta agaacggcag tcttgactct ccagggaagc aggatgctga 540
ggaagaggaa gacgaggaag acgagaagga cgccgctcga g 581

```

<210> 1347

<211> 119

<212> DNA

<213> Rattus sp.

<400> 1347

```

ggatgaagct gctgccggac actgggcacc agaatcgccc acccgtaggag gggggcagcc 60
agatgcccac agtgctggac acccgctgtg ccccgccagg gacctcccc caactcgag 119

```

<210> 1348

<211> 443

<212> DNA

<213> Rattus sp.

<400> 1348

```

gaattcggcc aaagaggcct acgcactgga cgetgaccgg ccgcaccatg agactcctcc 60
ccgcctgct gctgcttttc ctgctggcct tccccgcgc cgtgctgcta cgaggcggcc 120
ccggaggggtc attagctgtg gctcaagatc ttacagaaga tgaagaaacc gtagaagatc 180
caataatcga ggatgaggat gatgaggctg aagtagaaga agacgaaccc acagacttgg 240
cagaagagaa agaagaagaa gaagatgtgt ctagtgaacc agaagcttca ccgagtgcag 300
acacaaccat tctatttgta aaaggagaag attttccagc aaacaacatt gtgaagttcc 360
tggttggtct tacaacaag gggacagaag attttattgt tgagtcacta gatgcctcct 420
tccgttatcc tcaggatctc gag 443

```

<210> 1349

<211> 395

<212> DNA

<213> Rattus sp.

<400> 1349

```

gaattcggcc aaagaggcct aggggtgctg ctctcaaagt gctgcttgaa ggtcttgggg 60
tcaggcattt gtgtcctaca gactgtgcag gtatatatta aggcagcttt ggcagcagcc 120
ttttggatcat gtccctgttt cttcttttgt ccagcctgct ttttggcatt tttctgctga 180
gactgaatct tctgctgtcc acgagccata tccgggccgg gacggagtgg cgtccgagag 240
acggcgagc gcgagaagag ctgagcagga cgagcagga aggaagggtc gagccccgca 300
ccgcttgggg cctccgccac ccgcagagga aggaccgagc agagccggga gcacaacagc 360
ccgcgcctcg cacaccgcc gcagcgcgcg cccgg 395

```

<210> 1350

<211> 161

<212> DNA

<213> Rattus sp.

<400> 1350

```

gaattcggcc aaagaggcct acgagacttc ccagagcaat tgataaagtg ttgtgggttt 60
ccttttttct gttgccaaaa gaaaactgct ttccactaa tttgttcctt tcaagcattt 120
taaatatgac aatatttaat attaaatgtg tggtttgag g 161

```

<210> 1351

<211> 363

<212> DNA

<213> Rattus sp.

<400> 1351

```

gaattcggcc aaagaggcct agttttctac agccaggctc cccgccctcc tccttcccca 60
agccgtcccg agcaacacac agtcatacac atgggtagta ctgaagccct gacacacgcc 120
ccaaggaaag tgtacgacac acgggatgat gaccggacag caggcggttca tggagattgt 180
gacgacgaca aataccgccg ccggcctgct ctaggctggc tggcccagct gctcaggagc 240
cgggctgggt cccggaagcg gccactgact ctgctccagc gggcaggact gctgctcctg 300
ttggggctgc tgggcttcct ggcgctcctc gcccttatgt ctcgactcgg ccgtggactc 360
gag 363

```

<210> 1352

<211> 322

<212> DNA

<213> Rattus sp.

<400> 1352

```

gatgatcgcg accggagccc tectgcgcgt cctcttgctc ctgctggctt tcggccacag 60
cacctatggg gctgagtgcg acccggcctg tgaccctcag catggattct gtgaggctga 120
caatgtctgc aggtgtgagc ctggctggga gggccccctg tgtgagaagt gcgtaacctc 180
ccctggctgt gttaatggac tctgtgaaga accatggcag tgtgtctgca aggaaggctg 240
ggacgggaaa ttctgcgaaa tagatattcg ggcttgacc tctacccct gcgccaacaa 300
tgggacttgc gtggacctcg ag 322

```

<210> 1353

<211> 357

<212> DNA

<213> Rattus sp.

<400> 1353

```

gaattcggcc aaagaggcct agccatgtcc tgttctccgc tcgtaccatt cttgtccctt 60
ttgcttctgc tgttctacc cgagggtccc agagcagcca ctgcgtccct gccgcaagga 120
tcctccgagg gcgcagccac ctgcaaggcc caccacctgt gcctcttcgg gccacgccgg 180
ttgctctctg caccacctgt caatgtcagc ctctattatg agtccctgtg tggagcttgt 240
cgctacttcc tcgtccgaaa tttgttccca acctggctga tggttatgga aatcatgaac 300
atcactctgg tgcctacgg gaacgcacag gagagaaatg tcagcggcac actcgag 357

```

<210> 1354

<211> 336

<212> DNA

<213> Rattus sp.

<400> 1354

```
gtaattctag gcttccgaca caaactaaaa aattctttag cccacttctt accgcaagga 60
acccccatct cactaattcc cataactaatc atcatcgaaa ctatcagcct atttattcaa 120
ccgatagcac tagcagtacg actaacagca aacattacag caggccatct attaatgcat 180
ctaateggag gagctaccct agtacttata gacatcagcc cacttcttac cgcaaggaac 240
ccccatctca ctaattccca tactaatcat catcgaaact atcagcctat ttattcaacc 300
gatagcacta gcagtagcac taacagcaaa ctcgag 336
```

<210> 1355

<211> 488

<212> DNA

<213> Rattus sp.

<400> 1355

```
gaattcggcc aaagaggcct accatgtctg gtttgtctgg cccactatcc tggcctggcc 60
ctctctctat cgcttctctc tttctgttcc ttctcggccc cagctcggtc ctggcatct 120
ccttccatct acccgtgaac tctcgggaag gtctccgcca ggagatccac aaagacttgc 180
tggttacggg cgcgtacgag atcaccgacc agtctggggg cgctggcggc ctgcgcaccc 240
acctcaagat cacagattct gctggccata ttctgtatgc caaagaggat gcaactaaag 300
ggaagtgtgc ctttaccaca gaagactatg acatgtttga agtatgcttt gagagcaagg 360
gaacagggcg gatacctgac caactcgtga ttctagacat gaagcatgga gtagaggcga 420
aaaattatga agagatcgca aaagttgaga aactcaaacc actggagggtg gagctacggc 480
ggctcgag 488
```

<210> 1356

<211> 362

<212> DNA

<213> Rattus sp.

<400> 1356

```
gaazagaggcc tacgatgtcg ggcgccctccc gcggactgtt ctgggcccgc acctgcctcg 60
ccgcgctctg cctgtcggcc gcgcagagca acagcagcgc atctcccaac gtgactgacc 120
cgccgaccac gaccagcaaa gtggtcccga cgacgctcac caccaccaag ccgccagaaa 180
cctgtgagag cttcaacagc tgtgtttcct gtgtcaacgc cacccttgact aataatatta 240
cctgcgtctg gctagattgc catgaagcaa ataagaccta ttgttcaagt gaattagtaa 300
gtaattgtac ccagaagacc agtactgact cctgttctgt aatacctacc accccactcg 360
ag 362
```

<210> 1357

<211> 372

<212> DNA

<213> Rattus sp.

<400> 1357

```
gaattcggcc aaagaggcct accttttccc gcgtcccgcg gcatgcagtt ctcccgtgtg 60
ctggccgcgc tgtgcggtgt gctgctctgc gcctccggcc tcttcgctgc gtccggtgac 120
ttctgtgact ccagcctgtg cctgaatggt gggacctgct tgatgggcca agacaatgac 180
atctactgcc tctgccctga aggccttcaca ggccttgtgt gcaacgagac tgagaaagga 240
ccgtgttccc caaaccttgc cttccacgat gccaaatgcc tgggtgactga ggacacacag 300
cgagggggaca tcttactga gtacatctgc cagtgccctg tgggctactc gggcatccac 360
tgtgaactcg ag 372
```

<210> 1358

<211> 131

<212> DNA

<213> Rattus sp.

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (20) .. (21)

<400> 1358
gaatggcgnc cgtggtgagn ntggtcctgc tggtcctgct ggtcccattg gccctgctgg 60
tgcccgtggt cctgctggac cccaaggccc ccgtggtgac aagggtgaga caggcgaaca 120
aggatctcga g 131

<210> 1359
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1359
gaattcggcc aaagaggcct aatgacaact ttatttgctt ccatgaaagc atcttggaag 60
ttgtataaac atttcttttt tgcagcattc tttttctctt tactatccga gactgcaggt 120
gtttcattgc tagatggagg tggaagggtt tccgggtctt tttctgagag tgttggccct 180
aatatttcac tcccttactg tgcgctcgag 210

<210> 1360
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1360
gaattcggcc aaagaggcct aatattgtgt tgcacatccc tgtcatctgt atcagacctg 60
tgcttctcaa atatctgcta attttcattc cattgccatg tcagctctgc tatgtcagcc 120
ctcagtggtat tattcagcag tctcttctct gccccatat tccccccca ccacagccag 180
actcgag 187

<210> 1361
<211> 241
<212> DNA
<213> Homo sapiens

<400> 1361
gaattcggcc aaagaggcct agtatatttc tgtgattagt cctgaacatc ccatgttgta 60
ctgtttacct ctctcactgg acttagaaat tctgaagaac agaaacaaaa agttttctct 120
ttctctgtat gttctttttt tgttggtatt attattgact tggatatct tctttcagat 180
gtattttctt ttattctcaa cacaaagtaa ttttaacatg atctttctgg gccatctcga 240
g 241

<210> 1362
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1362
gaattcggcc aaagaggcct aggccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attgggttcc 120
cttgagtttt tgctaaaaa aatcttagta gttttgcccg tttaaaaa ctcacaatcg 180
taaattgctac tattcctaag atatctcgag 210

<210> 1363
<211> 343

<212> DNA

<213> Homo sapiens

<400> 1363

```

gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atattttaat aatgtataat attttgtcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tggtatcaac ttttactgt 180
caataatgtt gcaatacata tctttttgag agatagggtt ttaaattttc tttattttga 240
aataagttct aggttagagc cccaggatgg gattagttgg tggaaaatta agaatcctaa 300
tgactgaag actcctattg aaaccaagag caagatactc gag 343

```

<210> 1364

<211> 241

<212> DNA

<213> Homo sapiens

<400> 1364

```

gaattcggcc aaagaggcct aaagacacat ctgataaata gttgttcttt gtgtatgtat 60
gtgtacaagt atttgccagt agacagctgc catatttatt cataaatgca attaattgag 120
atttagtata taacctcaaa atcagtatat gactttacct gccaaagatgc taaagttgtt 180
ttccgtcctg gaaatttaca tgtctgtttt ccttaacaca gttccaaagg atagcctcga 240
g 241

```

<210> 1365

<211> 268

<212> DNA

<213> Homo sapiens

<400> 1365

```

gaattcggcc aaagaggcct aagacctgcc tctctggggt ggcttgggag ggaatgaatc 60
aggtgctggg caggcccttc catggaaacc tatgggcaact cagggtgaatt ccgagagcat 120
cggttcagcat ggagagaatt cacagggccg gcgaggatgg cagggtgggc ccccttggat 180
gactttactt ccacggatgc tgcctgtgca gggctcacc aatgctttaa aaatcaacgt 240
gccgattgaa ttctagacct gcctcgag 268

```

<210> 1366

<211> 482

<212> DNA

<213> Homo sapiens

<400> 1366

```

gaattcggcc aaagaggcct aaaaagactc cgtcgttcgg ccggacacct gaagtcaaga 60
cacaaaagag gacggctcgtt tcattgattt gggaagtggc cctacctgtg attagggagg 120
gggtacgtct ccccaaaactg atcatcgtaa ggggtgttaa cacagacgag gaaacacacg 180
tttttaaagt tcatgtacgt tcttgtacac agaggtaaa atttgaaaac ctgtgccttg 240
tgggttggtgac tttgaagctg gccccgccga cggccaccgc acagcccag ggggtgactt 300
gcaagtcggt gtcctctggg aacattgtcc tttccccacg gctttaatca tgaaaaccag 360
gttgggggtt tttttttaat attgtgaaat gtacaccatg aaatgaaagg tttatcctgt 420
gccagaaacc aaggtttatc atgctcctag gaactttttt cttacaccgc ctaccgctcg 480
ag 482

```

<210> 1367

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1367

```

gaattcggcc aaagaggcct agagttacta agaacataaa ctgcaaactt gcctgcacct 60
caagaacaaa tactttattt aagtgtcttt attaaatact caatacaagt gtctgagcta 120
aaggaaacct agagatcact tactctaata cttttatcaa caaagaactt gaagtttggg 180

```

gagattatct aactcatcca aagtcacaga cttaggggttc caagataata tgaaagtgtc 240
ttatctcgag 250

<210> 1368

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1368

gaattcggcc aaagaggcct atctaaatgt catttcaatc agaaaaccag ccatcaactg 60
tcaaaatggt aaaaacagtt atgtgtgttt tcaaagccag aagtgcatac atgtggtgag 120
acttcagggt tttactgttg tccacagttc tgagtccag gactggttcc cttactcggg 180
attctcccat ggaaaacttc atcggggaat tatagggtta tattttcaag acttgggaata 240
tgtctacagt taccttttcta aaaaacaaac aaaaaaatcc attttaaagc atttttttaa 300
aaataatcat gccagggtag ccaaatagaa gcaactttgg gggtttttgca gagtcaagtc 360
ttataaattg tggaatatcc ccttgggtcc aggagatcat ttgactccca cacacactcg 420
ag 422

<210> 1369

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1369

gaattcggcc aaagaggcct atagggcctct ttggccgagc ggagccggcg gagcctctgg 60
aatcacccgg gtcgctgttc ctgagcagct gcagagcattc gagggctgga gaggagcaca 120
tactgtccat ggagctggtg gtcaagggtg acagggggcg gtggtgatgg cgcagtttga 180
cactgaatac cagcgcctag aggcctccta tagtgattca cccccagggg aggaggacct 240
gttgggtgcac gtcgccgagg ggagcaagtc accttggcac catattgaaa accttgacct 300
cttcttctct cgag 314

<210> 1370

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1370

gaattcggcc aaagaggcct agctttatct cagcagacgt aactagccac agtaaagcaa 60
agcatactgt gaaacacaaa ataacgaccc ttaggagtag gggcagaaaa atacatttat 120
aatgctattg tttcttttct ttttgatttt tcctatgtac agtcatttcc aatataatac 180
tatttttaat gcagagggtt taattcactt aaaaaatgaa aacatagtag ataagtgtga 240
gagcagaagg ctcgag 256

<210> 1371

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1371

gaattcggcc aaagaggcct accagttttg cctttcacgt ctatttgaca tagcaaccac 60
tctattgctg ggtaatttat gttctgttta aaacagaaat atttgtgcct gtagtctacc 120
attgctcaat ttgtaattta gctttgcaat gaaagcttct aacagttacg ccttgtcttg 180
gtacattgtt gtttcaggct tattagtttg cacatgtttt agtaatacaa ccaccgggct 240
cgag 244

<210> 1372

<211> 462

<212> DNA

<213> Homo sapiens

<400> 1372

```

gaattcggcc aaagaggcct aacctaaatc acctggaagg agagcattac tcacaaaaat 60
tgcaaaacaa gggatatcaag aatttggtga atagccagtg acatgctgta gatttttgca 120
aactggatgt acttagcatg ttttctaatt ctgactggct tttgttaact tgataattct 180
tcattctact taaaaagaaa aaaattacac atagtcattc ttgatgttat aaatagagaa 240
aaagtgtgtg tgagcaataa tgcataagct actgataact tgcttacagc agatagcaat 300
aaggcatttg gtggcattcg gcttggtttg taatagggat tttttttttg gttgaccact 360
ccccacact tccaaaatta aacagtgttt tcttagcatc ttgaatatct cctgcggtgt 420
atattaacat cttgatgaga cagattttcca ggcgttctcg ag 462

```

<210> 1373

<211> 431

<212> DNA

<213> Homo sapiens

<400> 1373

```

gaattcggcc aaagaggcct atcacacaca ctggggcctg tctgggttgg ggggctaggg 60
tagggatagc atcggaagag atacttaatg tggatgatgg gttgatgggt gcagcgaacc 120
accatggcac atgtatacct acgtagcaaa cctgcatgtt ctgcacatgt atccgagaac 180
ttagaacata ataataataa ttttttaaaa agtcctggaa ccaggctggat ggaggtttga 240
aggttggcat atttattttac tggaaagcaa gagtatgctc aaaattttga gatagttgta 300
ttgaaaaata actatcacag aaaacctatc tattaaaaaa aaaatagggt agtctccagg 360
atccatagct ccaagctcag gcaggaaaca gatataagga aagattttaa gtacaaagga 420
ctttgctcga g 431

```

<210> 1374

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1374

```

gaattcggcc aaagaggcct aaaataaata aatacaagcc tggttgattt tttgggcatt 60
tcttacagaa ttggataaac aaagtgtgtc agagcccaaa actagaaagc cagaagactt 120
gggttaaatc tctccatct ctattcccca atagtgtagt aactgtggat aaatcctttt 180
ggagtgtcag gtctccttcc tcccacatct aaaatagtat ttattatgca actccgactc 240
ctcgag 246

```

<210> 1375

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1375

```

gaattcggcc aaagaggcct acaggaagca ctgggctggg gaaatgggtt agaatggagg 60
gctggggcat cactaaaggc ctccttgca cctggcagtaa ttcattgtgaa ttttgtaac 120
atggctcgtg gccttttttc cagccctgat cagctgctca agagctggca gcagtaggta 180
gataattgga cttaacaaag tgaaaaattg gtatcaccag gatacttggg aggcattacc 240
tctatgtgat gtctttgtat tctgaaaatg ctagttgaac ctcctttatt ttaaatagaa 300
aggataagag aatctgagac tgagaaagag gaaaatggaa gtttgcgtat gaagcatagc 360
tcgag 365

```

<210> 1376

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1376

```

gaattcggcc aaagaggcct aatccattcg acatcacggt gatgatccgg gagaagaacc 60
ccgatggcct cctgtcggca gcggagatgc cccttttcaa gctctacatg gtcattgtcc 120
cctgtcttct ggccgtggc atcttctggg tgtccatcct ctgcaggaa acgtacagcg 180

```

tcttcaagat ccactggctc atggcgccct tggccttcac caagagcatc tctctcctct 240
tccacagcat cctcgag 257

<210> 1377

<211> 511

<212> DNA

<213> Homo sapiens

<400> 1377

gaattcggcc aaagagccta agacgttctg tcatctgcc aacctgccatgg aacttcccca 60
caccctaccc cagcagagcc cacctgaagt tectgttgtg agaattactc ttgtcaccaa 120
aggccattgt ctccagaagg cactgtacc ccagcaggga gaggaggagct tggacaccct 180
ctccattga gtagtttctt ctttgggaat tgcctgtttt ctgtctgaaa gccagagag 240
ccaggtgtct gcggtgtgat ttcagctgtc agggggataa ggggtgaagag agggaggacc 300
atggccatct tgcctgccct cccccacatc ctcaaacacc cagccagggg ggtgaatgtc 360
ccagagtgtt ggggtgacaa aagctgtgtc caaaagccag catgcagggg cctgagcacc 420
tgtggaagcc atgagctctg gcctctggat gctgagatct ggtggaagaa actgaactta 480
caaccaggca aataacactt caaagctcga g 511

<210> 1378

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1378

gaattcggcc aaagaggcct acaccaacat aacttcaaat tcaatttttag tttcacaatt 60
ttcacattac tcaaaatatg aaattggaag cttaataggg aagtctggtt tgggggatgg 120
agtagagaag tcaaagggat tatgtgatgg agatgagttt tatgccaaga taaggcttga 180
tataggtgtt gaaaggtgac aatttgacca ttgattcctc gag 223

<210> 1379

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1379

gaattcggcc aaagaggcct agctgctgga ggctctgcgc caggcagtgc agcggaggcg 60
gcagcgcagg ccccaactgat ggccggggcc cctgccaccc ctaactctca ttcattccct 120
ggctgctgag ttgcagggtg gaactgtcat cagcagtgc ttcagagcct cgggctcagg 180
tggcaactgt ccagggtcca ggcaggggc tgggagctcc cttgcgcctc agcagtttgc 240
agtggggtaa ggaggccaag cccattttgt taatcaccca aaaccccccg gcctgtgctt 300
gttttccctt ctgcgctacc ttgagtagtt ggagcacttg atacatcaca gactcatgcc 360
aaactcgag 369

<210> 1380

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1380

gaattcggcc aaagaggcct atgcagtggc tcacaccttt atctcagcct cccaaagtac 60
tgggattaca gccaccatgc ccagactctt tagataatc taaattcttt agatacctgt 120
tgttgcaaat acatacctag aagtgaatct tgaggaaatct tcagatatgt gacatcaagg 180
tttgctagct caatgtatct tgaaacctta atttaaccaa tatttcttga ggggccctta 240
catgccaggc cctgttgctg gcctggagaa aagcagttaa caaacagat gagaccatgt 300
tatcatggaa ttttctggac aggacaaaca gacaataaac aaacatatgt gctcgag 357

<210> 1381

<211> 349

<212> DNA

<213> Homo sapiens

<400> 1381

```

gaattcggcc aaagaggcct aagcaaatcc agtttgctga tgacatgcag gagttcacca 60
aattccccac caaaactggc cgaagatctt tgtctcgctc gatctcacag tcctccactg 120
acagctacag ttcagctgca tctacacag atagctctga tgatgagggt tctccccgag 180
agaagcagca aaccaactcc aagggcagca gcaatttctg tgtgaagaac atcaagcagg 240
cagaatttgg acgccgggag attgagattg cagagcaaga catgtctgct ctgatttcac 300
tcaggaaacg tgctcagggg gagaagccct tggctggtgc aacctcgag 349

```

<210> 1382

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1382

```

gaattcggcc aaagaggcct acggagggtg cagtgcagcc agatcaggcc actgcactcc 60
agcctggatg acgggatgag actctgtctc aaaaaaacga acaaaaattt ttttaagaga 120
aatgtcattt gtttttgttt ttgagacagg gtctcactct gttgccctca ctggagtgcg 180
gtgggatcac ggctcactga agtctctacc taccggctca attgatcttc ccaccacagc 240
ctcccaaata gctgggagaa atgtcctgtt tttaatgaat ttgtcttctt ttttgtcttg 300
tttgttttaa tatctagtga tctaataaat ttggatgata tcttttgact atcaattatg 360
aaacctgtat ctcgag 376

```

<210> 1383

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1383

```

gaattcggcc aaagaggcct atcgattgaa ttctagaccg gcccgctccg tcaaacaagt 60
ttcttcttag gctaagaaac gcagtatata cgagtatctc tatatatagt actaatggat 120
ttgatgtgct tcccccttag cgtccccctc cctctgctcc tctctcttca gcctgggtctc 180
ccctactctg ag 192

```

<210> 1384

<211> 429

<212> DNA

<213> Homo sapiens

<400> 1384

```

gaattcggcc aaagaggcct aaaattgtca atattttaagt aactctttac tgagggcctc 60
ctctttgccg aattggggca ttcccatttc tgagtctcca agattccctg aatataactt 120
ctcttattgc ttatagcact ctgcattata gttactgatt tttttaaacc aatgtccctt 180
attagatcat aagctcaatg aggtctgggag gcattgtctt ttttttattt gttcattttt 240
cagtttcttc atgctgttgc taatcctcat gcatagtagc tgctcaatca tattagctga 300
gtgaatgaag agaggcgtga atgaatgaac aattgaatga attttcaa atgaaaaagct 360
aaaaactaga taggtctctg acctttattt cctacacaca catttgtaa ctacaacctg 420
atactcgag 429

```

<210> 1385

<211> 500

<212> DNA

<213> Homo sapiens

<400> 1385

```

gaattcggcc aaagaggcct aagaagggtg aggttgagct gagctgagat tgcgccactg 60
cactccagcc tgggtgaaag agtgcaactc cgtctccaaa aaaaaaaca aacaagaaaa 120
aaccacaaca aacgtgtgtc tgtaactaa caaatgagt atgaacatg ttatatgttc 180
tgagttctct attaacatca acattgtgtt ccaaatttgg tggttgccta ggaatggaca 240

```

```

ctcttcaaag taaacttttc caaggacaca tcctcaccct ctgactgaag aaacctcaaa 300
aagcagagat tcctttaaat gtagtactat gtttgaccat taatacatat agcaaataaa 360
aatgtgttcc atttgtgcct ctgaaatagg ctgtttttcc ctgaaggaga gaataaattg 420
ggatgggtta ggacaacca ctgttattat tttaaagagc caggagatgg aagtgtagtt 480
atgaaaaatg taccctcgag                                     500

```

<210> 1386

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1386

```

gaattcggcc aaagaggcct agtgtggtta cgcggcgcgc gggagggtggy cttgaaaggg 60
tccttatgaa ccctagggaa aggcgcgtctg gtaggaactc catttcaaga ccttttaaag 120
tgagacctgc atatgttgaa agagtttcag agagtgaagc tgggttctta gaagctggaa 180
tgtcccagca gaattgtaga atgcgaaaaa ttcggcacag tagtctaaac aggtgcaccc 240
accactagaa tttgaacata ctcgag                                     266

```

<210> 1387

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1387

```

gaattcggcc aaagaggcct aaatggaatc atgataaaat gtctattaca taatatactg 60
ttctgttctt tgtttttctc gtttaaaaat atcactgtga aatgtcaatc caacatttta 120
tcacactata ggagccctct cgag                                     144

```

<210> 1388

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1388

```

gaattcggcc aaagaggcct accaaggtgc tgggattgcy ggcgtgagcc accgcgcccc 60
gccatgtttt ttgatattct gaataaaaag gatatagcag ttgggatagg cttgggttct 120
tgtcctttat gttcttgcct ttctctcatg ataatacaat cataattaga aataagatgc 180
taagaatata aaggtggctc tatgttaata ctgtattgat aggtcaaagg agaaggctcg 240
ag                                     242

```

<210> 1389

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1389

```

gaattcggcc aaagaggcct agtcatttaa tttttaatct actgagaaga aaaaaataag 60
acaattgaag atacgctttt ttatgggatt tgccgcttaa gcctaattga taaaactgga 120
acgttttatt gtttacttat tagcaccctg cttattccaa aaatagaatt tgatatgggt 180
tctaaaaata catacaataa agtaaaaaat atatatatag agagagaaaag cgagctcgag 240

```

<210> 1390

<211> 342

<212> DNA

<213> Homo sapiens

<400> 1390

```

gaattcggcc aaagaggcct aaaattgaaa ccaagaaaac ttgttttttag aatatttcgt 60
ctgaataagt acagtagcca aggaatacaa acataattgc atgtttttta aaattccttg 120
gaggctggaa ggggttaagc cagaagtgc acaaatagga attaggggaat gttgtatatt 180

```

tatatatgta aacttttttt gtaagaaaag ttggtgacaa ctaaaccaac tttttccaaa 240
 gtgcgctatg catattttta atgaaagatg acatgtattt gcacaaaaat tctcaggcac 300
 attaaattat tgtaaaactga agtaaaaccc aggtgtctcg ag 342

<210> 1391

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1391

gaattcggcc aaagaggcct actcctagct tttacttttag agttgggaga gaggtttggt 60
 ttccattgtc atttaaatcc tgttgggttt cagcagagcc tgatcttttag ggccttgggt 120
 gcagctgttg tctggagatg cagatcactg tctgctgaaa agagccctcc tgctggggtt 180
 agggatctcc tgattgaggc atggatccaa gggcttcttt ctttgttctc tgattccctg 240
 aggtctctcc ttgtgtgtgt ggtgcgtgtg cactcgtgtg agcgcaccag gaactatgac 300
 agcaatcaac gggatatgact ggggggtggg agcagaggca gcatggccag gaatctatac 360
 tcgag 365

<210> 1392

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1392

gaattcggcc aaagaggcct agctgacctt gatttcttgc tgatggagtg ttggacactc 60
 aaagggcacg tgaagccctg tgcgtggctc acctcattgt atccttgcaa cgtcctggaa 120
 aatgtgcaca acaatgtgac ttaattttca gacaggggtga actcgag 167

<210> 1393

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1393

gaattcggcc aaagaggcct acgaggggtg ggggtcccag atacctcaac caccacccac 60
 tgcaaggcgt cagaaggagg aggggaagtg gagctctgct ggggttggga gcagcagaca 120
 caggaggcac cagccccgtg tgaggggggg tgtgtggtgg gcaggggaaga ggtgcaggga 180
 gttgaatttc ctgtggcttt cacttctctg ggctctgcct ctcccgttag ctcagagact 240
 cgag 244

<210> 1394

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1394

gaattcggcc aaagaggcct atgaattcta gacctgcctc ttataagcca cattcctgct 60
 gttctcctgc actcttctga ttctgtatct ttacatctag attattttta cctcctaggt 120
 tctttccctc ttcattacta ccttataaaa atacatccat tcttcaaata ttttcccaat 180
 ctcccagtaa gaattagcct ctctcaatgc tgggtgcagt gctcattcct gtaatcccag 240
 cacttttggga agccgaggca ggcagattgc ttgaaccgt gagtctcgag 290

<210> 1395

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1395

gaattcggcc aaagaggcct agagaagaga aaaagcaaac agaaattggg ggcgtttttg 60
 tggatgcaaa gaaatttaca ggacccttc taccctagag gtccaaggga attcaggggt 120

```

ggctgcaggg cccacgaag ggacattgaa gacattcctt atgtgtagtg tccctggcag 180
gcatttacca ggccatgtgc tttaacgtta cggtaatact ttactttagg catccctcct 240
gttgctagca gccttttgac ctatctgcaa tgcagtgaga ctcgag 286

```

<210> 1396

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1396

```

gaattcggcc aaagaggcta caaatgagtt gtctggatgt ctcaacctta acatggccaa 60
cacagaattc tttatctccc tatccaaccc tattgccatg cccaccaaac ttgaacccca 120
ttctttccct ctccgggaaat attaccacaa gctaccgggt tgcctccagcc aaaaacctac 180
aagtcggact ttattcttct cttgttgtct taccttgtgt tcagttcatc atccagtttt 240
gttggtttta cctccaaaat ctcgag 266

```

<210> 1397

<211> 568

<212> DNA

<213> Homo sapiens

<400> 1397

```

gaattcggcc aaagaggcct aattgaattc tagacctgct cttggctcta aatgtgggct 60
tttcttctcc agtcgccttt ttaactcatc ttctactgcc cagcccttca ggcacagtg 120
cccctctcat gctctacaac ctttgcaatt ggtgtccctt gtgcctgggt tcccccttcc 180
ctgcaaagcc acatggctga cctctccctt tcaggtttga ttggtcacct tctccgtgaa 240
gcctccctag ccattctgcc tctgattcca cccctctcac ctagccacct ttccattttt 300
tttttctcac cactcatcac ttgctaacta acatagggtca aagggtggctt ttttctttgc 360
ttttaagatg caagatattt gatatgttta tgttgagaac taggagatga cagagaagga 420
aaagttgaaa acacaggcat gagaagagtt gatcgttttg caggggtctg aagaagaagg 480
tgggagatga atcagagcat aagtgggaagg taaggccaag gaagaacacc tcctctcttc 540
tccccctccc tccccctccc cgctcgag 568

```

<210> 1398

<211> 370

<212> DNA

<213> Homo sapiens

<400> 1398

```

gaattcggcc aaagaggcct aagggggcag gacagtgtgg aatctctagg gtgtatgggt 60
aggtaggggg cacagttagt tctaagtggt cttttatgct aaaagcctct ggggatatct 120
gttttgaaaa taaagatagg tgtccccctc ttgctgtcat ctageccaga cactctgctt 180
gctctctggc tgtctgtctc ctgggaaggc tttaggagga ccaccagga caggatgacc 240
atgctgccat ctgctctgga gctgggtctc agtgacagag gacagtgact gtggatgggt 300
gcagtctctg gtgggagggt aggatagaag tgataaagag ctaagaggag cttctgggtc 360
tcctctcgag 370

```

<210> 1399

<211> 347

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (39)

<220>

<221> unsure

<222> (116)

220>

<221> unsure

<222> (127)

<400> 1399

```

gaattcggcc aaagaggcct agcttcgagt ccgggcacnt cgagatgctt tacttttttc 60
tttcgacctc ttaaaaaact aaaccaagcc aaaccacaaa ggaaatctgc acaacntaag 120
agagacntga aagggatcgt gtaactacta gtttgtaact agtttttttc aagaaagggg 180
aacaaattta tatatatata tatatatata tatgtgcaat atatttttac actgtgtgat 240
taacattagg gagtcctggg cacatcgaga tgctttactt ctttctttcg acctcttaaa 300
aaaactaaac caagccaaac cacaaggaa atctgcacaa actcgag 347

```

<210> 1400

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1400

```

gaattcggcc aaagaggcct agctccttct actatagtaa acatctctgc acataatcgt 60
ttctgtgtgc atgtggaact tctccattta caagggtgctt ttaagtcata aaacgttggc 120
tcttaccatg caggggtggg cgggtgtggct aggtggatgc ggggtgcttt cgccatccct 180
gggcctttct ccttccctt tctctcact cctccctccc tccctgactc aggatatcta 240
tctgattctc tctagcaatg gatcgtgggc aatggacacg caatatctcg ag 292

```

<210> 1401

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1401

```

gaattcggcc aaagaggcct agtaaaattt tacaataatt atttggatta ttcagaagat 60
ctaatttaga tgagtaaatt ctaactaagt ctgtgtgtaa aatgagtaga aaataggctc 120
tttaagaac ttaactcatt aattacgtgc taccattcct gagaggaaac atgggggtcct 180
ggggaaatgg agtaggtgag gaagtagctc gag 213

```

<210> 1402

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1402

```

gaattcggcc aaagaggcct aggatgaagc tgctgctggg catcgcttg ctggcctacg 60
tcgctctgt ttggggcaac ttcgttaata tgaggtctat ccaggaaaat ggtgaactaa 120
aaattgaaag caagattgaa gagatggttg aaccactaag agagaaaatc agagatttag 180
aaaaaagctt taccagaaa taccaccag taaagtttt atcagaaaag gatcagctcg 240
ag 242

```

<210> 1403

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1403

```

gaattcggcc aaagaggcct actaactagt gaaggaaagg tgaaactggt tccaaatact 60
aaaatccaga tgtcatattc agtaaaatgg aaaaagtcag atgtgaaatt tgaagatcga 120
tttgacaaat atcttgatcc gtctttttt caacatcgga ttcattggtt ttcaattttc 180
aactccttca tgatggtgat cttcttggtg ggcttagttt caatgatttt aatgagaaca 240
ttaagaaaag attatgctca ggtactcgag 270

```

<210> 1404

<211> 232
<212> DNA
<213> Homo sapiens

<400> 1404
gaattcggcc aaagaggcct atttaatagc aatctcaaaa ggcttctgaa atttcaatat 60
gaaattaatg ttaaccgata ttttactaca cacctacaaa cagatgctaa tggataaata 120
ttgtgtttca tttattttat tttattttat tagttttcca agacagagtc actctgttgc 180
ccaggctgga gtgcaatggc ttgatcttgg ctactgcaa ccccccctcg ag 232

<210> 1405
<211> 429
<212> DNA
<213> Homo sapiens

<400> 1405
gaattcggcc aaagaggcct aagagaacct acaaaactaga cttgtagatt aaaattatct 60
gatcaaaaag gcagactgta aatttcctta agacctacct tggcataaag gctgaccag 120
caaaagaact gagaataca gcctgagatg gacagcagta attgcaaagt tattgtcct 180
ctcctaagtc aaagataccg gaggatggc accaaggatg gccacagcac acttcaaagt 240
gatggcgctc aaagaggtct tgcatactct cgagatgctt ggggaatcct aatggacatg 300
cgctggcggt ggatgatgtt ggtcttttct gcttcttttg ttgtccactg gcttgtcttt 360
gcagtgtctt ggtatgttct ggtgagatg aatggtgatc tggaactaga tcatgatacc 420
ccactcgag 429

<210> 1406
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1406
gaattcggcc aaagaggcct aaatgttttt tatttgetat ttaatgtttc tcttccttag 60
ccacagggga cactcatggg acaagtgcag accctcacag gcaccggag tcttgcctca 120
caacttgatg catggggact gcatggccct ccttgcgccc aggcctctga caggagtggg 180
gggttgacgc agtcactggg tggccaagaa ctcatttcat ggcggtgaac tcgag 235

<210> 1407
<211> 479
<212> DNA
<213> Homo sapiens

<400> 1407
gaattcggcc aaagaggcct actcgaagtc ctcaactcgt gateccaccg ccttagcctc 60
acaaagtgtc gggattacag gtgtgagcca ctgcaccag tcacatgtcg tattttaaaa 120
gggattttaa agtatcattg gattgtttgt aacacgaagg ataaatgctt gaggggatgg 180
ataccatttc tccagcatgt catgattaca cattgcatgc ctgtatcaaa acacctcatg 240
taccataata atatatacac ctactatgta ccacaaaaat taaaataaat ggtgggtgag 300
aagaaacact gcatacggtt tcaaaacat cagagaggcc atgggaaaaa ttttaaaaat 360
atatttacga agtgaaacag ccattctaag tatgacacca aaccataaa cttgaaaaga 420
ccgatacatt ttactaaata aaaataatgt tttgtatag caaaaccaat catctcgag 479

<210> 1408
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1408
gaattcggcc aaagaggcct aataatctct gagaaattcc agactttccc taatcttttt 60
gtcttctgat ccttcaccag cactgccctt aatgtccag tcatgtcaat acagaccatg 120
ctcctagcca acctgtcctt ccaaattctt ccagcctctg cccattatcc agtttcaaag 180

ctgcttccgc attttcaggt gttcattttt agcaacaacc ccactcctct cgag 234

<210> 1409

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1409

gaattcggcc aaagaggcct acgtcgattg aattctagac ctgccttcga gtttgacagt 60
ttaagaatt taataagtta taattttata acttaaaaag aaatatgctc ttactttaca 120
ttaaatatta tacagtaata ttctctctcg tgattttttg ttctcctagg ttatctagag 180
gtacaatatt gttaaacacc ccactcgag 209

<210> 1410

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1410

gaattcggcc aagaggccta gtgcattgag gttgcaggta tacagtcacc aaagaacctg 60
aaataattgc cggaatgata tcctctaaaa gatgtgagcc cctcagagag agagagagag 120
ggttccctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc ggttcagcc gtgtcagga gactcgag 218

<210> 1411

<211> 321

<212> DNA

<213> Homo sapiens

<400> 1411

gaattcggcc aaagaggcct agagttaaag cagtgggtgt ttatagaaac tgagtgattt 60
ttgtgaatca tataggagag aggacaggag atgagggtga aaaggtagat ttggaccaag 120
tcttgaagga ctttagtgta atgctgcttt ttcttttagg aacagggtgt gaggagtttg 180
ataagatttt aagtaataga atcacatgct taaatctttg tttttagaat agcagtcatt 240
gtgataatgt gcaagacatt ggctttgtgc cttagggcaa ggggacttgt agagtgattc 300
agtaaagagg actatctcga g 321

<210> 1412

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1412

gaattcggcc aaagaggcct agactggata gattcaattg acctatttct gagttctcta 60
attctttctt ctgcctgctc agatctgcta ttgagccagc cactctagtg aatttctcat 120
tcaattatta tacttttgaa atctagaatt tctgtttcgt cctttaaaac aaatctttat 180
attttctatt taatgaggat ttgttcttgt gctttccttt gtctcgag 228

<210> 1413

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1413

gaattcggcc aaagaggcgt acgattgaat tctagacctg cctcgagctt cctgggtctc 60
cacatgctgt tcatcactct cctcctcttt acctggatgc ctctgacctg tgccctccga 120
cctccactga gacaatgtca cctccaggaa gtgccctca caatcctctc ctcccacaat 180
acctgtccc gactcgag 198

<210> 1414

<211> 241
<212> DNA
<213> Homo sapiens

<400> 1414
gaattcggcc aaagaggcct atgagtagtt tggttcagtc tgtttaatac aagtacttat 60
tcctatgtat ttccaatac aaaggagcat aactgtata attttggctt taccagttcc 120
tgcttgcttg agtgctgctt ctttgagcct cctttacaca cttcccagtg gcctccatcc 180
tcacagacac tgctcaccag tgggcacttg caggaccagc acttacttcc cctctctcga 240
g 241

<210> 1415
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1415
gaattcggcc aaagaggcct agacctgcct ctagtgtgtt gcttctgccg ttggtgtcac 60
atccaagaaa ccattgccta acacaagtca caaagatttt agagaatttt ttaaattgta 120
ttttattcat ttatcttaca ctttatagct cattctgctg tattttttaa aaggcagatc 180
cttcaaggac aatacatagg ggaactcgag 210

<210> 1416
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1416
gaattcggcc aaagaggcct actcaggata catcaatcac agtcagataa ttataatttt 60
agaatgtcag cttcatactt accagcactg tttattttaa tattttttcc tgttataatg 120
aatatacata acttcaaagc acatccgtac aaacctccta caagctgcac cttcataatg 180
agaaaccata agcatacaat gtctacttcc ctcgag 216

<210> 1417
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1417
gaattcggcc aaagaggcct aggagcaggg aacagggtgtt taaaattatc caactgccat 60
agagctaaat tcttttttgg aaaattgaac cgaacttcta ctgaatacaa gatgaaaatg 120
tggttgctgg tcagtcactt tgtgataata tctattacta cctgttttagc agagttttaca 180
tggtatagaa gatatgttca tggagtttct gaggaagaca aaggatttgg accaattttt 240
gaagagcagc caatcaatac cttttatcca gaggaatcac tggaaggaaa agtcccacat 300
caactcgag 309

<210> 1418
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1418
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tttccattgc tggccacact cactaaacta aattataact ctttgcttcc atattttcat 120
catattaaat gcttgcactc tttttttctt ccatttttac tatcccagtg tctgttttcc 180
cagaggaaca gttcatttca acagccaggg agaaagctgg gatgctcgag 230

<210> 1419
<211> 363
<212> DNA

<213> Homo sapiens

<400> 1419

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gaattcggcc aaagaggcct acaggtggcc aacctggcca tctccccac cccccaggg 60
cccacctggc caggagacgc tctccggctc ctctgcctg gctgggtgcca cctgaccgtt 120
gaagatgggc cccgggagat cctgatcaag gaagggggccc cctcgcttct gtgcaagtat 180
ttcctgcagc agtgggaact cacatccccct ggccacgaca cctcggtgct gcctgacagc 240
gtggagattg gcctgcagac ctgctgccac atcttctctca acctcggtgt caccgcaccg 300
gggctgatca agcgtgacgc ctgcttcaca tctctaata acacctcat gacgtcgctc 360
gag
363

```

<210> 1420

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1420

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gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagatg 60
ctgctgacct ccgcaagcct tactctctgg gagattgctg tagagaaggg tgtctttgct 120
gcagttctta tgagatctcc cagaaaccaa ggattggggg caccctccag tgacaaacag 180
aatccaacac cttctccctt ctctgctgct gtctctgct ccagcctctt ccttcccc 240
tctagcattg ctaccttctc tctacacgc acgcaggcat ataaacgtag gtttttgatg 300
ctctctgctc tgttgacccc gctattttca tgtttccaac aggtttttct tccccacccc 360
ctcgag
366

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<210> 1421

<211> 431

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (193)

<400> 1421

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gaattcggcc aaagaggcct acaaacccct gggctctggcc aatgacactg ancactactt 60
tctgcgctat gctgtgtctg ccgcggggagg tggctctgcac cgaataacct accccctgga 120
agaagctctt gccctgtagt tccaaggcag gcctctctgt gctgctgaag gcagatcgct 180
tggtccacac canctaccac tcccaggcag tgcataatcc cctgtttgac agaaatgcac 240
gctgtactag catctcctgg gagctgaggg agaccctgtc agttgtattt gatgccttca 300
tcacggggca gggaaagaaa gactgggtccc tcttccggat gttctcccga accctcacgg 360
agccctgccc cctggcttca gagagccgag tctatgtgga aatcaccacc tacaaccagg 420
actggctcga g
431

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<210> 1422

<211> 252

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<220>

<221> unsure

<222> (39)

<220>
 <221> unsure
 <222> (74)

<220>
 <221> unsure
 <222> (105)

<400> 1422
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 attttgggtt gcantcaaac ttgtgctcag actgggtgaaa ctganagtca ggcttttaca 120
 ttttaaagaa aatacagtat tcattctaata tcagggtgtct acttatttta tgtaagaata 180
 attttagatt tccccccac catgaagttt cttcctattt tcttatgctg taacttaccc 240
 cccatactcg ag 252

<210> 1423
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 1423
 gaattcggcc aaagaggcct acccctgctt tctcctaaat tactctccca aaggtcacca 60
 aaggaccacg tggatcatcac atttgatgac cttctctcca tttttaccct ccttaacctc 120
 tctgtgtttg atattgtcaa ccactgtccc ttctcatgagt ccctgtttcc atggcgatgg 180
 tgacattgta ctcttcacg ccttaaatcc tctgaactc gag 223

<210> 1424
 <211> 409
 <212> DNA
 <213> Homo sapiens

<400> 1424
 gaattcggcc aaagaggcct agggcagcga gatggaatca gcaagagaaa acatcgacct 60
 tcaacctgga agctccgacc ccaggagcca gcccatcaac ctgaaccatt acgccacca 120
 gaagagcgtg cgggagagca tgctggacgt ggccctgttc atgtccaacg ccatgagggt 180
 gaaggcggtg ctggagcagg gaccatcctc tcaactactac accaccctgg tcaccctcat 240
 cagcctctct ctgctcctgc aggtgggtcat cgggtgtcctg ctcgtgggtca ttgcacgggt 300
 gaacctgaat gaggtagaaa agcagtggtg actcaaccag ctcaacaacg cagccaccat 360
 cttggtcttc ttcaactgtg tcatcaatgt tttcaccaca gacctcgag 409

<210> 1425
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1425
 gaattcggcc aaagaggcct aacagcctgg aaactgcctc tagcagcagg ataatgcaat 60
 cacagggtct atttgtttcc cttttctcat ggatctgagt ttcacaagag tgaaactccg 120
 gctcaaaaaa aagggggttt tattcgaaca acatacaaac acacaacaga atgcttcata 180
 agtcacttta aacaataaaa tagacaataa taacatacat atttttataa gcatactcga 240
 g 241

<210> 1426
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 1426
 gaattcggcc aaagaggcct agggacggag cggacccgag tgatacccgg gagactagct 60
 tggccacagg agacaacgtt gaggtacaga cagggtggcag agaaacaaac atcggtattg 120

cttaaaccac ttgctatttc cagttccggc ttttgctagg tctaccataa ccaaataccg 180
cagattgagt ggttcaaacy ccagagattg atattctcgc aagtactcga g 231

<210> 1427
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1427
gaattcggcc aaagaggcct acctacgtgt ggccgcccag ctgtctgcag gctgtgccga 60
ccactgcctc tgtctccagg aagcagagggc agaagtgatc cttgctgagg agggccatcg 120
agtctccgct taaatgccag cacagagaga gcaactgcaa gtcgccttcc ccaggcacct 180
gcaccgacat gcagcccgtc ggggaccaca ggtagagcct gctgcctccc gtgcagatgg 240
ccagccgagg ctgtcgcggg tcccactgaa acgcgcgcac tggggacagc tgctcgag 298

<210> 1428
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1428
gaattcggcc aaagaggcct aattttaatc tacattatct ttatatcttc aatttgaac 60
aaccttttaa taatttcaaa gtagacaaaa tgtttctaac tttcttcac aaaagcatat 120
tttgcttttg tttatacact gtttttttaa ttccactcga g 161

<210> 1429
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1429
gaattcggcc aaagaggcct acaggctacc atgggtctaca agactctctt cgctctttgc 60
atcttaactg caggatggag ggtacagagt ctgcctacat cagctccttt gtctgtttct 120
cttcgcgaaa acattgtacc accgaccacc atctggacta gctctccaca aaacactgat 180
gcagacactg cctccccatc caacggcact cacaacaact cggtgctccc agttacagca 240
tcagcccca cactcgag 258

<210> 1430
<211> 288
<212> DNA
<213> Homo sapiens

<400> 1430
gaattcggcc aaagaggcct aatggtaaga atgggtgctg tctgtctgtc tctgtctgtg 60
cttctgggtc ctgctgtccc ccaggagaac caagatggc gttactctct gacctatata 120
tacactgggc tgtccaagca tgttgaagac gtccccgct ttcaggccct tggctcactc 180
aatgacctcc agttcttttag atacaacagt aaagacagga agtctcagc catgggactc 240
tgagagacag tggaaaggaat ggaggatttg gagtatcagt cactcgag 288

<210> 1431
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1431
gaattcggcc aaagaggcct actgtgtgtg agtgcaggca ggctgacaat gatttcctca 60
gtgattacgt acagagcgag tccttgccgg ttaggggccc cctctggagc catcctgatg 120
gctttggggg ccttgcttcc attttccatt attatgtgga ctaccggagc gacagcgag 180
tccaagacct tgtaggtttg tgatgaggag ggagcacaca gcacactcga g 231

<210> 1432
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 1432
 gaattcggcc aaagaggcct agctaggcag ggtgtctgcc cctcctgag ttgaagtcac 60
 gctcccctgt gccagcccag aggccgagag ctatggacag cattgccagt aacacaggcc 120
 acctgtgca gaagggagct ggctccagcc tggaaacctg tctgagggtg ggagagggtg 180
 acttggggca caggagagag cggggacaca caatcctcga g 221

<210> 1433
 <211> 332
 <212> DNA
 <213> Homo sapiens

<400> 1433
 gaattcggcc aaagaggcct atgcgaaggc atggcgggga cactgtgaat gtcagcccag 60
 aaggtgatca gagcctgtta attaaaatgg aaagaagaca gaagggaagg tagacatcag 120
 gttctccctg gagacttttc gttttcattt acgctgcgga aactgacgtt tttgcctaac 180
 accccatgta atgtaaacgt ataggcttga gtacgtgtcc ggccgcatgt gtagtgaacc 240
 ctaaagcttt cctaattgta gttagcatcg tccctaagcg gaacgatttt ccgtgaacat 300
 gatttgtact tttctacgag ccattactcg ag 332

<210> 1434
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 1434
 gaattcggcc aaagaggcct acttttacat acatggttgt atgtttatct gaactatttt 60
 caccatata ttacactagt gtgtatggaa gtgtccattt ttgtcatacc cctggttaacc 120
 ctgtgatatt atttttaaac attttgctaa tggatctctg ttcttggttg aatgtattta 180
 atttccagca gaatgagccc cattctctcg ag 212

<210> 1435
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 1435
 gaattcggcc aaagaggcct agagaaatgc aactgcctga aataacccaa actttcctcc 60
 catccttgcc taccctgaga gagctttaac ctactgtggg cagccatgaa gtccttcccc 120
 aactaaaacc atgcaacctt ccatcaagga aggtattctt taggtgtcct gcactttcag 180
 tttctctttc cttttttttt tttttttttt ttttaaggagg acgattctgt tctctatctc 240
 tgggtttttt tcctgaaggt tttctgagtc agaataagaa gttcatcaga aaccattttg 300
 atggaataaaa ctacgatgcc ttcacacatt agctcattct ctagtccact tttttcaact 360
 tcctgtagat agtaaagcaa tgaatatgca agctcgag 398

<210> 1436
 <211> 398
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (88)

<400> 1436
 gaattcggcc aaagaggcct agtagatccg aagtggcccg cgccatctca actatgaggg 60


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gacacccgta ggcggcgga gagggacncc gcgaggagcc aataaagctc cgcaaccgga 120
agtgtcttct gggaggggtc gtacccggaa gtgtggcacc tcccgggccc caccgggaag 180
tgtgatgcca ccgccgtac ggggaagtaa tggatccgg ccaattgaga ttcggagtta 240
aaacagggat gtgcagatgg aggtcggagg agacactgct gccccggccc ccgggggccc 300
ggaggacttg gaggacacgc agttccccag tgaggaagct agagaaggtg gaggggttca 360
cgcggtcccc ccgatcccc aagacaagga cgctcgag 398

```

<210> 1437

<211> 426

<212> DNA

<213> Homo sapiens

<400> 1437

```

gaattcggcc aaagaggcct acttccaatt aactagtttt gacaacattc aaaaaagagt 60
aataaacttc gccttaattt taataatcaa caccctccta gccttactac taataattat 120
tacattttga ctaccacaac tcaacggcta catagaaaaa tccaccctt acgagtgcgg 180
cttcgaccct atatcccccg ccgcgtccc tttctccata aaattcttct tagtagctat 240
taccttctta ttatttgatc tagaaattgc cctcctttta ccctaccat gagccccctc 300
accaccaccc tggccacccg atgcctcatc ctggcatcaa cgagcacccg ccttgggctg 360
gaccccgaca cctgaattc ggccctcccc ccatggctt caacgggcag cccccacaca 420
ctcgag 426

```

<210> 1438

<211> 509

<212> DNA

<213> Homo sapiens

<400> 1438

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gaattcggcc aaagaggcct agagctgcgg ggaaggaggg ctgggaggcg ctgaagcgag 60
ggcagactct agtgtctgta ggagttgcta ttccaaaaaa aatcattact ctctaattgt 120
tctgatttta gatcagcaaa gcgtgccggg cggtgggtgga gagactgagg gcggacaagg 180
cgagagggaa cgagccgtcc acccttcgga gaagcctagg cgecttgtaa gtaattcgcg 240
aacagtcggg agaacaaca gccaacgggc gctgcagtgg ccgcacttgc gcgcgtctca 300
atcctggggg ctctgcgcgc ccgccccagt ccctcgcccc attgactcag tggcttctcc 360
gggcgctgca gcctccgccc ggggcttcga agggccgagg ggctccggca gagagggagt 420
ggagagggag acgcgccggg accgacgaac aatcctgccc ctgcggcaaa ggtctctacc 480
cggcgctggc acctcgagg cccctcgag 509

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<210> 1439

<211> 376

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (270)

<220>

<221> unsure

<222> (280)

<220>

<221> unsure

<222> (289)

<220>

<221> unsure

<222> (304)

<220>

<221> unsure
<222> (349)

<220>
<221> unsure
<222> (352)

<400> 1439
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acccctttct ctttatgccc acgggcatgg gaaaggaggc tgcatttggt gtaaaaaacg 120
aggttctttg tacaatggtt gcacgttact tcgatgcgca cgctccgtct gtcgtagtgc 180
tgggtcagac tcttttcaag tgcaaaggag tccccacact ccaagcactt gtaccacgc 240
gtcggtaacg tgatccctgc attggcgggn ggactgaggn ttgggatgna aacagggact 300
ggantgacac tgctcagcac cttgttgaag gcttccacca cagaactcng cnaggacgac 360
accacctgga ctcgag 376

<210> 1440
<211> 449
<212> DNA
<213> Homo sapiens

<400> 1440
gaattcggcc aaagaggcct aagggtgtag acccgatcaa tgtgggaaat gtggaagaca 60
ggctcatcgc tggagggtc tgtgggcagt ttcaccaaga cttcattcag gaaaatgggc 120
gttttataca ttttgaattg agcattggac ttcgagctga aaagtctctc agagccagag 180
gaaacagcaa actgcttgac catgtaggta agaagcagga agtcattgaa gaggaatccg 240
tgcagttcct tgttgcctct ggtcttctat aatttccac tgtgtaagag cttccggggc 300
cccaggcagt tggtagaga gttgaaaata agttgctccg cgaggccttc acactgcacg 360
tgcgcctgga tccactccag tcggtccgag ttttctctct cccgaactcc ctcattcact 420
tgagagcaca gtcctctgc ccgctcgag 449

<210> 1441
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (298)

<220>
<221> unsure
<222> (308)

<400> 1441
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cttactggtg gatgctatag agtcctctgt tttttaaagt accactgcgc ccagcccagt 120
attctgattt taaccaactg gttctgatta tatttaccaa aactggagtt aacttctctt 180
tccttatact cttctctccc tatccctac tcacaccgag gcttaacagc aacctcagat 240
ctcatccaat ggacagaaac aaatgttaag caacttgtca tctactcat gatttacnta 300
tgctaantgt ctcgag 316

<210> 1442
<211> 251
<212> DNA
<213> Homo sapiens

<400> 1442
gaattcggcc aaagaggcct acacaactca gttttgtctt ctgtattgtg tatttgagtc 60
ttctgtattc tgtatatact ttatggtgaa cactttgtgt ttgaatattt gtgtgccaaa 120

tgaagcctgt tttgtctaaa ttcctatattt gcaagggtgca gtcattctctc tctttctctc 180
 tgtttttctc tttctttctg tctctctcag cctctctctc tctcagtgc tgccggcagg 240
 gctcactcga g 251

<210> 1443

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1443

gaattcggcc aaagaggcct agcccttgac cacataccaa atagagggtca gcttcttagc 60
 agggcattca aggccactgt agctcctacc tacttttcta gtcattctctc ttccaccct 120
 ccacatggcc agcctctaca ccgtcacgat gaatgactgg ccctcatccc tgaaggctgc 180
 agtgtaaatg cttctgctca cttctctttt cctttcttca agctgctctt ctgctgttac 240
 ctccaggaaa cccccaaggc tcgag 265

<210> 1444

<211> 417

<212> DNA

<213> Homo sapiens

<400> 1444

gaattcggcc aaagaggcct atttgacaat ctttggcatt ccttgtagat gcattcattt 60
 aatctctgcc tctgtcttca cacagcattc tctccatgt gtctctgtct ctgtccaaat 120
 tttctcttcc taaggacacc agtcatattg gacttaggtt tcaccccaat ccagtatgat 180
 ctcatcttaa cttgattaca tctgcaaaga ccctgtttcc aagtaaggtc acattcacag 240
 attctaggtg gacatgaatt tggtaggggg agggggtagg ggactggata ctgtgcaaca 300
 ctatgtacca ggcactgtgc taagtacttt gcatacattg tctcatttaa ccttcacaat 360
 actccctga gattccttta ttattattat tcccatttca cagatgaaac gctcgag 417

<210> 1445

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1445

gaattcggcc aaagaggcct aaacccttct gttgggcgtt tctgctgaga ggcgggaggg 60
 gctgagagtc tgtgcggagg tccgtggaca gactgctttg ctgctgttg ctcttcggag 120
 gcggcgatcc ccgaaggcga gctgaaatac ggctgcaggc tacaatttgc agccgacgat 180
 tatggaagac ggcaagcggg agaggtggcc caccactcag ag 222

<210> 1446

<211> 221

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (70)

<220>

<221> unsure

<222> (97)

<220>

<221> unsure

<222> (209)

<400> 1446

gaattcggcc aagaggccta gatgtttgta acacaagggg tcattttctt cnatactttg 60
gggttctctn gtccattctt attttcagaa gaatttngat catttaggca tgtgtgcaa 120
gaatgatgtt ggtgaggctc agattcaatt gaaacagcaa tcagttagcc actagtggca 180
ccaagcacat ttgattcgct ttcagaggng ggaagctcga g 221

<210> 1447

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1447

gaattcggcc aaagaggcct acaggaaggc agaatgcacc catcactact tagagtcttt 60
cttgcccttg gcactttctc cacaaatacc aaaacgtata catcaagtgt gagcagggtca 120
gcctgctctc tgccatctct gttagtttta ttttcatcca caaattttaa gataaaccat 180
caaattggaa atcaccaact cgag 204

<210> 1448

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1448

gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcattctt 60
tgccctgatc agaatttga actacaataa atctcggata cattccttcc gaggcgtgaa 120
ggacatcaca atgctgttag acaccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag 253

<210> 1449

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1449

gaattcggcc aaagaggcct agcctccatg tgagaggatg gcagactcag ttaggggtat 60
cagagcatga atgggataag gaggatgacc atttgggaga gtagaaagag tggcagctat 120
aaccattgag agtggtgttg agcctaagtg gaatgatgag ggcattctgt gcaggagggc 180
agccagcctc aggatagtag aaccaggtg gagagggggg cagtccatgc agacagcagc 240
acagtggcat cagcttgatg gagagtgtta gagtaggggg cagcagtgcc agtctaataa 300
ggtatgaagc cttagtaga gtaaagaggg tacctgtatg tagccatggt ggcaatgaga 360
gactgattac tacctgctgg agattgtttt aagtgagtta atatattaag gagaaactcg 420
ag 422

<210> 1450

<211> 433

<212> DNA

<213> Homo sapiens

<400> 1450

gaattcgcgg ccgcgtcgac agacagtctc taggatgtga gaaagagaga gaagggcgaa 60
aaggaaagt ggctgaggg agaagagaga aatgtggcag ggtgagggg aacctgggtg 120
caggccaggc tgcctcagcg ataccccagg gaggctagtg tgggaaggaa ggaccaggaa 180
tccctgaaag gaccaggagg caacgggacc tgaggggggtg ttggggaggg aaggaggggc 240
tgctcggact ggagctgctt gccaaaggat tcccagttgt gcaccatgag cttctgcacg 300
gccagcagag cattatagcg gacctgctgg tcttcatgat gcatgtggtt catgaccagc 360
tgcttcccac cgagctgctc gatgaccctg ttgcctcgtg gataatgccg cacatattct 420
ccaacatctc gag 433

<210> 1451
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (571)

<400> 1451
 gaattcgggc aaagaggcct acacatgtgg gctcgttctg tcaactcaagg ccagcagaag 60
 gggaaccaga agtgtcagcc aattttccag aagagaaaca gagactccca gaggctgagg 120
 gcctggaggt ggtgcagcac agtcccacat ctgatggggc tcctttatct ctgaaaggcc 180
 atttgcttta gtctttgagt tgacagaaag aggcattggac ttgtctatcc caattgatgc 240
 tccagcctca aaagctgtgc attcactata gctagccact gagtgtccac accttctctg 300
 aaacttcaac tctaatagct ggaaaagaac actctttctt ctcactctca catggttaga 360
 gagagagaga gagagagagg tggatgaaca tactttacag atgtgttcac atttgctaag 420
 tgggtcccaa gccatttctg gaaagaatga ggttgcaatt gcctagtggc tgctcagggg 480
 gagagagctg gcaaggggct gacagcagac accctggcat cccagtgagc gtctgctgtg 540
 cctggaactg tagtcccaa atatgggtcaa nttgcgcgtg aaagtatttt aagagctgta 600
 atcctcgag 609

<210> 1452
 <211> 806
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (364)

<400> 1452
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 acaagaagta aggttactct ccttgcatga taccttccct ctcaggacta attttagcaa 120
 aattgagatg taaaatcata tcttttttca gttatttaag caacattaat gatctattaa 180
 atgaaataat ttgtctgaaa atatctagta taatgcctgg ttgatagtag gtactgaata 240
 ttgtctattg ataattttat tttctcattt cctacactact tttcttccct tcctttaatg 300
 ttttaaggctg tgttagcatt gtttagcctt tacattcttc agaatttgaa tttttaatcc 360
 tgtngggctc taatttcttg ggatgtgttt tattttgagg agagttagtc aagggtgaga 420
 ggttatcatt tttagcgtgct gggtaaccag ggggaccca gtgtgacctg agttcttgtt 480
 gtgtctgctg gtataattta tgttatggca ggcagtgggg tgggaggtag gtagggtgta 540
 gatatatgaa aagtagaata ttaacctctt agtacatttg aagcatgtac tgcctaattc 600
 aaagtgaatc tttctgtatc atgtgcctcc tgagggcagt tacgtgtctg ggataagtag 660
 agcgtttttc attctactct caagcacact aaaatgctta ttatgtgaag tattaaggaa 720
 taataagggtg attttcaacc ttgttataca aaacaaaaat ttgcttttct ttccaatctt 780
 ggatgattga cagggtattgg ctcgag 806

<210> 1453
 <211> 576
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (69)

<220>
 <221> unsure
 <222> (530)

<220>

<221> unsure

<222> (554)

<400> 1453

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gaattcgcgg ccgcgtcgac gaggatagtt gtgaaataaa tagctcactc cagggagtga 60
gaagatacnt cccccattca aggtacactg ccaaactgca ggaaagagat cctagcacc 120
accaaggtgc aactatgcta ctggatctct ggggtgaaaag aaacaaggag ggagttacag 180
aggaataatg tgagcagcag aacagagatt ttcattccaaa cattatttat gatgaatttg 240
gggaaaatca gatgaaaaat atatggccaa agtgaatcaa agaagacact aaaattctta 300
tatttttatc ataatagaca gtgctgcact gcacaaaact ttgtcttcat tctataactc 360
ttttccaagt ctagaaaaga gtctagaaaa actagactca tatcaacaag cttactctat 420
tcattgcttac agcgaaaatg agggcctcaa attaggaggt ctttcctttt aagccattct 480
tctagaagaa tgcagtctag aagtgtgtgag ctgagctttg gccccctaan atcttccaga 540
aatgaacca cctnatacca caatcaaacc ctcgag 576

```

<210> 1454

<211> 145

<212> DNA

<213> Homo sapiens

<400> 1454

```

gaattcgcgg ccgcgtcgac cgagtgtttg gtgtaacctg tagcagcaca tgactcactt 60
gctttcctcc attctggccc accacccatt aatactgcag gtgaagacag atttgccttt 120
cctcctatta ctctcctgtc tcgag 145

```

<210> 1455

<211> 439

<212> DNA

<213> Homo sapiens

<400> 1455

```

gaattcgcgg ccgcgtcgac cggtttcggt agcgacggta gctctagcgg ggcctgagct 60
gtgctagcac ctccccag agaccgttgc agtcggccag ccccttctc caccgtaacc 120
atgtgcgacc gaaaggccgt gatcaaaaat gcggacatgt cggaagagat gcaacaggac 180
tcgggtggagt gcgctactca ggcgctggag aaatacaaca tagagaagga cattgcggct 240
catatcaaga aggaatttga caagaagtac aatccacact ggcattgcat cgtggggagg 300
aacttcggta gttatgtgac acatgaaacc aaacacttca tctacttcta cctgggcca 360
gtggccattc ttctgttcaa atctggttaa aagcatggac tgtgccacac acccagtgat 420
ccatccaaaa accctcgag 439

```

<210> 1456

<211> 557

<212> DNA

<213> Homo sapiens

<400> 1456

```

gaattcgcgg ccgcgtcgac ggggaataga tccacaaaag catgtatgta cttacaaaacc 60
aagctgtaga gatcaagaaa agaacttaag tgttgatctc aagatttcta aattgtcaag 120
atttcatggt cattgtggtg gaactagtta acacttagag cttttggtat gtaataacta 180
tttgctatgg actgattaaa tgtttcaaaa gattgtgttc ttcaattttg gtgggttttg 240
atttttgttt ttttaactgc ctctcagatt atatttactt agtttaaatt tctttgcttt 300
attcattaaa gtataaaaac ttcaggctctc tgatatttat tttcacttgt ttactaatta 360
tttcaaaaac accctttggt gacttttatt ttataaatgt gtaatgtatt aaacgtcttt 420
aaatttttgt tcaactgaaa ctacattaac tttgatttgc tttactggga ttttttttta 480
aagacacttt ttccatgtca gtgcgcagca ctttaaccagt cgtttgtatt ccctttctct 540
tcaatccaac cctcgag 557

```

<210> 1457

<211> 413

<212> DNA

<213> Homo sapiens

<400> 1457

```

gaattcgcgg ccgcgtcgac cttctcttgcg tcaacactta ctacattagc aacactgatt 60
agtttcagta aargtacatg tataacaaaag tatacatgta ctagtatata ctgtaaattt 120
tcaaataataa ctgaagcaaa tattttgtct tatgcagttg acaggggtatt ggtcagttac 180
agttgtcatt tgaatcagtg ctgtcttatt tacattattt tctagatagt ttgctatgta 240
ttttaggtac ttttaatagct ctttaaatta aagaatgtca agggatgtgt gtggctaggt 300
gggtgtacac acacacatac atgaggtcgc tcatggattc aggtttgtga gtgtaattga 360
ttttaagtca tttatttgac aaccacacat tgtcacataa gcacagactc gag 413

```

<210> 1458

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1458

```

gaattcgcgg ccgcgtcgac gacctgcctc gattgaattc tagacctgcc tcgagccaga 60
gcccaccact actccaccca gctaccctcc agataggcac agtatggcca ggcttggcct 120
cacggtcagg gcctttctcg ag 142

```

<210> 1459

<211> 698

<212> DNA

<213> Homo sapiens

<400> 1459

```

gaattcgcgg ccgcgtcgac attctgagag tatgtatgcc agtttgttgc atggatatat 60
tgctgaggtt tgggatatga atgggcccat aaccaggtg gtaagcatac taaccactag 120
atagttttta aatcctaccc tctgcccac tagtagtctc cagtgtctgt tgtgccatct 180
ttatgtccat gagtatgaaa tgttttagctc ccacttataa gtgagaacat gtgttatttg 240
gttttctgtt catgcgttaa ttcacttagg ataatggcct tatataatga agcccagctt 300
tcaaaaaacca gaaattacag acacattttt ttttaaaaaa gagaccactc attaagagat 360
aaagcaatca gtagaactag atcccgatat aaaggctata gtggaaaaga cagataatac 420
gtttgagcag attggaattt tcggcacaga aacgttaaga aagattcaaa tggaaattct 480
ggaaatagac acattaacag atgaagaatg gctaagacct tcagattctt tagtagactt 540
aatgcagcta aagaagaatg gaatgaacct tgaatgtaga ttcatagaaa taccctaaact 600
aaaaggcaag gagaaacaga acagagtgtc taagaattta ggaaaatcta aaactgtata 660
acatgtctac tagaatttca gaagaagtaa tcctcgag 698

```

<210> 1460

<211> 239

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (189)

<400> 1460

```

gaattcgcgg ccgcgtcgac taccaactga gctgtaaaat tgtgacagtg tagcttattg 60
atccattgtc ttgttgata ttattaagca tgagatttgg ggttatttcc ttcgttccct 120
ccttctctcc ttccttccct ctctccttcc ttcctctctc ccttctctct ttccttctct 180
cctccctant tccctccttc cctccctccc tccctccttc ccttgccccc cccctcgag 239

```

<210> 1461

<211> 836

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> (509)

<400> 1461
 gaaattcgcg gccgcgtcga ccaaactctg cctacatgtt atctccaaag ccacagaaga 60
 aattttgtgga ccaggcttgt ggcccaagtc attcaaaaaga aagtatgggtg agtcccaaga 120
 tctctgctgg acatcaacac tgtggtcaga gcagctcgac ccccatcaac actcggattg 180
 aaccttacta cagcatctat aacagcagcc cttcccagga ggagagcagc ccatgtaact 240
 tacagccagt aaactctttt ggatttgcca attcatatat tgccatgcat tatcacacca 300
 ctaatgactt agtgcaggaa tatgacagca cttcagccaa gcagattcca gtccccctcg 360
 tttaaagtca tggaggctat aggatcttat gtaaacagtt tttgtttctg atagtaaatg 420
 actttattct aacttgagat cagtggcgga tcaaaacctt caagattcaa ctgaaaagt 480
 ggcagttatg gttttctttc atctgatng tcatgtatctg ttgatttgc tttgtatgtt 540
 gttgacatct taagattgat gtgaaagttt tagatttttt accctgctct ttgcctcagt 600
 cttttgtacc gagcctttta atagatgcca ggaatgaagc tactgtgtta aagtagaaag 660
 tcaaccgatt atcatgattt gtagtcagtg tatgtgactt caaaataagg tattgactgg 720
 atttttttta aagaatgtga aaatatgatt tttgtgagg ttttattttt attaattgaa 780
 ttgtaaattt tgattttctg aagtgttgaa atcggaaca ctacacatag ctcgag 836

<210> 1462
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 1462
 gaattcgcg ccgcgtcgac gcacagccaa gatgttttaa aagagtcata taagagaaat 60
 tgtaatcttg ttttataaag aggacagtgc agggggaaag ctgtacccaa tccccctgta 120
 ttacaccccc cttccccaaa gataatcatt taagatttcc aaagtatttt ttttatttat 180
 ttgaaattat gtatgatttt attttcattt ctccaaagct ctagtgtct tttaatggtc 240
 aagaaaatgg tcacagggac aaatgtctaa taatgaacaa ctagttaaaa tagttgttta 300
 taagttcctg tcaacttgag ctttatggat gcgtgcataa tttccattgc gtgtgtgtgt 360
 aggatatata tacgcttttc cgacagcact cgag 394

<210> 1463
 <211> 864
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (581)

<220>
 <221> unsure
 <222> (583)

<400> 1463
 gaattcgcg ccgcgtcgac aaaatatgaa gaaaacatag tatttcaggt cgtttgctcc 60
 cttatatcac ttatcagatt ttggggactt taaggaccta aattttcaaa aaaatcaagt 120
 tagatcatgg atttttttga aaacttgggt cattaaagtc ctgaagaaaa tttgaaaatt 180
 taagtcctta acgtccagaa gacgtttatt ttagactgta aagtaaaagta aaaccaaggg 240
 ttaagggtag gtaactttct tttgttttaa acaatggat gtctatatct atatctatta 300
 tcatctatag gtatatagcg tctatgtgtg ctaaccagc accaattgcc tcccctagct 360
 tatagaagag accagtgaat tagaagtagg agatgtgagt tctaacccta tttctaccac 420
 taattagata atagaattcg aaaaactcat tgacttcttt cagcattggg tccctttgct 480
 gtaacatgaa gacattgaaa gaagtaactt tatgttagtt gttctccag tatgttgtgt 540
 gtgtacctgg tgtggacctc acggtcaccc ttgccagaga nantagattt tttttttaag 600
 tctatactaa tattcttttc tactagaaa ggatagtggt gtgtttactc tcagttgtaa 660
 ataactctgt tttctctgce tgcattgcat tctgtctct ctagecattt tataaatact 720

gaaaccagta atcatgattt aagtttttgt gtagactgca gctcatctgt tataaacaat 780
 aaaagctgag taaatatgtg ctaaatggtt taccataagt cctgtaggag cattctcttt 840
 accccattta ccccaatcct cgag 864

<210> 1464
 <211> 505
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (44)

<220>
 <221> unsure
 <222> (486)

<400> 1464
 gaattcgcgg ccgcgtcgac atctcttgaa cccgggaggc ggangttgcg gtgagcagag 60
 attgctcgat tgcactccag cctgggcaat gagcaaaact ccgtctcaaa aaaataaaaa 120
 taaaaaataa aataaaatag ttagctggcc atggtggtat gcacctgtgg tcccagctac 180
 ttgggagggt gaggtgggag aactgcttga gctcaggagg tcgaggctgc agtgagccaa 240
 gatcacacca ttgactcca gcctgggcag caggacgaaa ctctgtctca aaaaaaaaaa 300
 aaaaaaaaaa aaagtccctc tcattgggta gatatagcca ggcttggctc agtcattggc 360
 tggggaccac cctgagaaaa gcacaggata aaaacctgaa gctgatgctg aagacactaa 420
 cagggtggga gtgtccactt accatactcc ttgcagctga ggggtggctc ctttctagaa 480
 gggggntctt accgacaccc tcgag 505

<210> 1465
 <211> 711
 <212> DNA
 <213> Homo sapiens

<400> 1465
 gaattcgcgg ccgcgtcgac cttgcaggga agtggctttc tgccatgtag agccaggctg 60
 gcaacctgcc ctctgccatc agggagttag catgaacctg gaaacctcta ggacgcaaga 120
 gcgaggctgg ctgtccctc gtgtgcagtg cttagacctt cttgccacac atcccgtecc 180
 tcacctact ggatagcccc cgaatcaact gtccacacga aagcagctgc ctggttctga 240
 gtggccatgc tactcccaa gcacaggctg aatgaaaaga aaactgtgca agtagcttgt 300
 atggtgggaa gccccagca gaggttagg gtgcagccag gtgctctgga agccttgagg 360
 cctctggtgt catcttctc acctctaaat aagagatggg ctaggttggt caaggtctc 420
 cctgtcctaa aacactttaa tgaaatggaa gaaaggctgc aggtgatag aggagggaca 480
 gtctggtttg gttccctcaa gtcttcagga gagggctcaa ggacagtctc ccatttcttg 540
 ttggcaaaat gtaaagtga gtctggaccc tgtccattga gtagagactc aggaggccaa 600
 ccaagatccc tgaaaagcta acagcgtggt cagccttccc acagacagtg caccacccgt 660
 gggaggacac ttcgcccccc attgttaacg tccaccgcgc ccgaactcga g 711

<210> 1466
 <211> 802
 <212> DNA
 <213> Homo sapiens

<400> 1466
 gaattcgcgg ccgcgtcgac acatatgatg tataaagaat ggtgcaggaa aataaatata 60
 aaagacagat ctcatctctg tctccgtgag ggagtagata ggacatgtat gtaaatgttt 120
 gtgcgtgtgt gtgtttcaca gctcttacac caatgccact ggccagttat gacatctcta 180
 tataacctcc ccacagaaaag gatctaacag tactaagaaa ttgtggtatt ttgagctata 240
 caaatagttt ttgaaatttc ttctgaatga agacctttgg atttctaaaa gcacaaaaac 300
 aaggcttaca gagaaaaagg gtatctaaac tatcccaatt tcagactgac tgtatgacaa 360
 agatatactt acattgatat taccagttta tgtaattttt gcaggataaa tcacaagttt 420

```

gagtgtagt gctctcaatt ttgggggggag gtagttgaat aaattttaga attctcttta 480
agaatagcca atacttatta agtgaaagtg tgccagatgc tatggtaggc attgagctta 540
taaaattgaa tatcaaattg tctctgccct taatgagtga caatccaggg gaggcagaag 600
tgtaataaag tatttataat aatgtataag ggttttgata tgctacttct atattttgca 660
tacatgcata gtaatatagg aaaggataag aagtattatg atataggaag caatatagaa 720
aatgaggtaa ttacatTTTT ctagaattgg gggagatgac ctataagtag aatttttagac 780
gttgtaaagg gataagctcg ag 802

```

<210> 1467

<211> 433

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (249)

<400> 1467

```

gaattcgcgg cgcgctcgac cagaagtttt atttacaaga tctcctgaat tattaacaga 60
ccttaaaaaat tcctaaatgga aaacttctgt tatcaaatca ctgaaaatag catatatatc 120
tggttctacc aaaaaagaaa aaaatctggc agtattgacc agtttccaaa tgattaagaa 180
aagagtgtca agaaccagt aaaatacata ggaaaagggt gcccttttta tcctcctcca 240
ccacaccant ttggaaaaaca ttttaggggt cttcattgta tttttctaata acattttacc 300
aattgtccag aaaatcaaat cccgtcttca agacgacatt acttgagctg acctgtgcaa 360
acttgggttc cgagaacagg gtgtcttccc catcgtcctg cctgacatca ggagatggca 420
gcttccccctc gag 433

```

<210> 1468

<211> 752

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (187)

<220>

<221> unsure

<222> (199)

<400> 1468

```

gaattcgcgg cgcgctcgac gtgggatttt ccaagaaaaa agggtcagag tcctgggtatg 60
actgctggca tcagggtgaa ggggaacac tgctctcagc tgatagggct ctttccagcc 120
atcctgagat cttccacttt aaaactgcc aactcctct gccatccagc aggtgagatt 180
aactcancg caccaatcng ttaactagc cagagtccac tcacaaatta tccccagatg 240
acagattgtc tacaatatc tcaactacatt cacaaccttt gatattaata ggtatttggg 300
ccttaaatgat attaccaatg ctaaaataag gaaaaagcaa tacaatggag gtaatgggtg 360
taaagggtgag aggtgtgtgt gtgtgtgtgt gtgtgtgtgt gtcaatcggg aatgcttggg 420
atgtaaaagg ggaagaatca atactgtaga acactcacac gctgatttat cactaggcac 480
aaatctaaat tcagttaatg gttcaacatc atcatcactg tcttctctct attcatcagc 540
aacagggttct tttgattctt ctagaaaata aaataccctt ttaaagtcatt ttttgactt 600
taaaaaaatg aagcatattg taaatctgaa taatgcaatt caattttaat ttccaattat 660
ggccgacaaa tttatttcca atgatgggtg ccaaattctg attatacagt gagcatccta 720
gaaaagcctt gcctcgatct cctgacctcg ag 752

```

<210> 1469

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1469

gaattcgcgg cgcgctcgac agcggatatt agtgaatgga gattccaata taagggcattc 60
 tggaggcggtc tctcgctcac agaggcgccg caccagattt gtcgccacgc cagtgcccg 120
 agagtggccc cagatgtact cgag 144

<210> 1470

<211> 501

<212> DNA

<213> Homo sapiens

<400> 1470

gaattcgcgg cgcgctcgac gtatgggtgtt atactcataa gccttcagct tgetgtagta 60
 atcagaaaaac ttgtttaga ggatggaaat gggcatcccg ttgagaatga tcccaaaagc 120
 aatgcagagg aaggcaaaaa acctgcccg gtgggtctct gggtagatgt ctccgtagcc 180
 caggtggag atgctcaccg cggccacca ccaggagtgg gggatggtag tgaagtgtgt 240
 gctgggcaca tegtgtctca cagagtagac agccgcagag aaagtgaaga tgcccatggc 300
 gatgaagagc agcaggcagc ccacctgctg gtagcactgg cgcagcgtga agccgaaggc 360
 acgcagtcgg gtggagtggc gcgccagctt gaggatgcgg aagatgcgca tgaggcgcat 420
 gacgcgcaac acctgacca ccttaccac gctgccacc gtctggccgc gttggtggcc 480
 ctcgcccggtg aagcactcga g 501

<210> 1471

<211> 514

<212> DNA

<213> Homo sapiens

<400> 1471

gaattcgcgg cgcgctcgaca gcttgttaaag attctccaaa gaaccctaca tttaacctgt 60
 aagcagggtt acactctgtc ttgtaacctt ttgcatcacc ttctccgttc taccacactt 120
 atctacccta cagaatactg cagtgtgccca ggtggctttt acaagcctcc ttctgaatac 180
 tttcttatca aggactgggg caaacccggg gacttgtgga atctgggaat ccagtggcat 240
 gttccttctt cagaagaagt gtcttttggc ttttatcttt tggactcctt tcttcagcct 300
 gagctcgtca aactccagca ttgtggggat ggaaaacttg aaatgtctag agatgatatt 360
 ctacagagtc tgactatagt gcacaactgt ttaattggct ctggaaacct cctacctccg 420
 ttgaaaggag agccagttac taacttagta ccaagtatgg tgccttggga agagacaaag 480
 ttgtatactg gacttgaata tgatctgtct cgag 514

<210> 1472

<211> 485

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (87)

<220>

<221> unsure

<222> (90)

<400> 1472

gaattcgcgg cgcgctcgac gtgagtttag cttctgacct tttcataggt tagtttttta 60
 taggagtggtt aaatataaat tagacntcn tagtgcataa ttgtatcaga tacttgaatg 120
 gtgcatgtcc agtagataat agtgttcttt gtctcgaggt tcatccattt tataacataa 180
 gtaatcctta atttcttctg aagagtgtta tagaacagga gcaccaaagt tcatccttag 240
 aatttttctt aatgcaaaa gtatagtgat atatcttaca ctgggtcaagt aatctatgtt 300
 atttgcgtgca gataatataa aagttgattt aactttaagt cttttttctt ttgttctcag 360
 acagcaaatc aaaaggcctc cagtggataa tagatacaac gatagcttat cccaaagctg 420
 aacctataga tattcaaacc tggatccttg gatacaggaa accaacagtc acacatgttc 480
 tcgag 485

<210> 1473

<211> 814

<212> DNA

<213> Homo sapiens

<400> 1473

```

gaattcgcgg cgcgctcgac gtaaagggtt gtaactgact acagcatgga aaaaaatagt 60
tcttttaatt ctttcacctt aaagcatatt ttatgtctca aaagtataaa aaactttaat 120
acaagtacat acatattata tatacacata catatatata ctatatatgg atgaaacata 180
ttttaatggt gtttactttt ttaataactt gtttgatctt caaggtaata gcgatacaat 240
taaattttgt tcagaaaggt tgttttaaaag tttattttaa gcactatcgt accaaatatt 300
tcatatttca cattttatat gttgcacata gcctatacag tacctacata gtttttaaat 360
tattgtttta aaaaacaaaac agctgttata aatgaatatt atgtgtaatt gtttcaaaca 420
tccattttct ttgtgaacat attagtgtt gaagtatttt gacttttgag attgaatgta 480
aaatattttt aatttgggat catgcctgtt tctgaaaact agatgcacca accgtatcat 540
tatttgtttg agggaaaaaa gaaatctgca ttttaattca tgttggtcaa agtcgaatta 600
ctatctattt atcttatatc gtagatctga taacctatc taaaagaaag tcacacgcta 660
aatgtattct tacatagtgc ttgtatcgtt gcatttgttt taatttgtgg aaaagtattg 720
tatctaactt gtattacttt ggtagtttca tctttatgta ttattgatat ttgtaatttt 780
ctcaactata acaatgtagt tacgtacct cgag 814

```

<210> 1474

<211> 671

<212> DNA

<213> Homo sapiens

<400> 1474

```

gaattcgcgg cgcgctcgac atgccaaata tcatttggtt tacttaacaa tattagtgtt 60
ttaaaatgat gagttataat tatttgaaca tatagatatg taacatgcca caaatcattt 120
ctaccatgca aggtgtataa gttgtttatt ttttagtggt aaaactataa tagcttgaat 180
ataggtaacca atgaacaaat tcaaattgca cctcttttct taaaagaatg ggatttaaac 240
tcttataaac attctttaac ttttttgttt gtttgttctc ttttttctct tttgcattct 300
tctagccagt gattgatctg ctaatgcttt ctttgccact ctaagtataa tttatttcac 360
ctcctcaatg aaaacctcat ggttttgctg gctgtttata actgcacgc acttctagtt 420
gtggcttgaa ttttcagtta agctttcatg gtatgtaatt ttccagcctt ttgagaaaac 480
aagcatacta taagtgaagag ctgttttgggt ttccttggtt gtttgtttca tgctaggctt 540
ttcctggcag catgtccatt gcaggcagtg gacaagaaac caccagcatt gagctaacc 600
agtacatgct aggacctgtc cttagaggggc cacttttcat tacctgagtt atttgtacag 660
aagagctcga g 671

```

<210> 1475

<211> 513

<212> DNA

<213> Homo sapiens

<400> 1475

```

gaattcgcgg cgcgctcgac ctcatgcata ttgcatggt tacagtctag gaactttaaa 60
cagttcttta aatgccaaaag tcctaaacag atgttagctg ttagcttctt cattaataaa 120
ataagaagaa aaattatgct ctgagagggt aaatgacttg tttaaggta cacagtcagt 180
ggaaaagtct gggttacagc ccccaaattc taatttgtca tccccattta tatcctttt 240
tttaaatgtt aaaatatgtc atatgtataa aagtatatat aacataaacc cacaacttaa 300
agaataacaa attgaaggct tttctacttg ctaccagct taacaaaaag gagatttcta 360
gtacctttta agcctcttgt gaggtcctac ttgattgaat ctcccatctt ctctctcct 420
cagagataaa cagtttctta aattttatgt gaatcatttc tttgcttttc tttatacttt 480
taccaaatat gtgcataatc ctaaacactc gag 513

```

<210> 1476

<211> 507

<212> DNA

<213> Homo sapiens

<400> 1476

```

gaattcgcgg ccgcgtcgac attttcagtg taagataaat ggatgagtaa actcaaatat 60
gtatcacgtg tgctttgtat ctttaagatgt gtttccaaga gcatctgaaa ttttgttgt 120
acatgtatct tgatcattta taaagccact gtgatctata aatcaaaaaa atccattgtc 180
ataaccattt ttaaaaagtca aaaattaaga catccttaat taaaaagttt caaatctaga 240
cactaaatgt gtgtgaatgt acaaagaaaa caaaccattg cttatgctgt tatatactag 300
agaaattttg ttttgcttgc tgttttaact tgacagatga aggactttag ttgaacttca 360
tattgtaaga actgttaata aaagttgtca agtaaaaagc gctatatcta aaaagacttt 420
atgaacagtt attctatcaa cttttaaagg ttttaaacct gccagaaat taccttggtg 480
tctgaagttt ccctctgtct cctcgag 507

```

<210> 1477

<211> 826

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (113)

<400> 1477

```

gaattcgcgg ccgcgtcgac tctatttttt cctcttgtgc ttcctcttag cactctgaac 60
ttgaaatttt agtgatcaac atcccagaaa ggctttttta aaaatttctt gtnggtgttt 120
ctttttcccc aagaagaaa agccagagag aaaatagcta aagaattatg aatttacttc 180
atagctttaa ttagtggtcat acatattagt gtagtgtcta aaagagtttg cttgatcata 240
atcgactgtc ccagtattat gccttacaac acatttcatt atcatacata tgaaataaga 300
catgtgttta taagaacaat ggataagcct gttttctgac aaaatcatta actatgccaa 360
agttctcttt ttttcttttc ctctgttaat aatgaatgct agctttcagt atctttaccg 420
acttcacctc tgaattaatt ctgaccttag tcaaatgtaa ttttggtatt agcctacttt 480
ataaaccttt acattaatta agttgcatat aagcacacta agttacacga cttacaaaa 540
atttcttttc atcatgcac acaacacttc ccgtgtgttg cataacttaa ggtgcctcca 600
tatctttgga atcaaatatt tggtaagcct caagaaaacc ctagaatcat ccacacaaca 660
aacttaaatc agtttttact tatggaaatt ttagctagag accaggaaat atttaatctg 720
agcccaaat taataagatt tattactaat gatagtcag tttggataat agatagtgag 780
attaaggttg ttaattgtt aactgatttg ttaactatcc ctcgag 826

```

<210> 1478

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1478

```

gaattcggcc aaagaggcct agaagtagtg tgattaatag catcagagag ataaaagagg 60
agattggaaa ttgaaaagt tcccattcag gtgtcttgga aattgaaaat tcagtagatg 120
atctgagtag cagaatggac atacttgaag aaagaataga cagtctagaa gatcaaatg 180
aagaattctc taaggataga atgcaaatga ccaaacagat aattagtaaa gaaaggcaaa 240
gagatataga ggagagatct agaagttgca acattcgttt gataggaatt ccagaaaagg 300
agagttatga gaatagggca gaggacataa ttaaagaaat aattgatgaa aactttgcac 360
tcgag 365

```

<210> 1479

<211> 539

<212> DNA

<213> Homo sapiens

<400> 1479

```

gaattcggcc aaagaggcct acagctctca agaggcagaa tttatataat aatcctttca 60
actctatgag ttacaccagt ccttacagtc caaatgccag tagcccatag agcagtggtc 120
tcaattctcc atcctcaacc ccagtgcgac ctcttatagt caaacagctt atacttctctg 180
gaaattcagg taacttgaaa agctcagaca gaaatcctcc actcagtcct cagtcctcta 240

```

tagatagtga gttaagtgtc tcagaattag atgaagattc aattggatcc aattataagc 300
 taaatgatgt aactgatgta cagattctag cccggatgca ggaagaaaagt ccccggaag 360
 aatatgcagc caccacgtct cggcgcagtt ctggttcac ttgcaattct acaagacggg 420
 gtacttttag tgatcaggaa cttgatgcac aaagtttaga tgatgaagat gacaatatgc 480
 atcatgcagt ataccctgct gttaacaggt ttccaccatc accacgcaaa aacctcgag 539

<210> 1480

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (137)

<400> 1480

gaattcggcc aaagaggcct aacnacctca aggggtcatgg aagaaaaaga tgaatatagc 60
 agcagtgaaa ctactggtga aaagccagag cagaacgatg atgacaccat aaaatctcag 120
 gaggaagatc agccaanaat tattaanaag aaaagaggaa gacctcgcaa ataccctgta 180
 gaaacaacgt taaaaatgaa agacgactcc aaaacagata ctggcattgt cactgtagaa 240
 caatctccat cttagcagcaa actgaaagta atgcaaacag atgaatccaa taaagaaaca 300
 gctaacctac aagaaagaag tataagcaat gatgatgggtg aagaaaaaat agtaacaagt 360
 gaactcgag 369

<210> 1481

<211> 397

<212> DNA

<213> Homo sapiens

<400> 1481

gaattcggcc aaagaggcct acaacaacaa caacaaaaac ccacaaaaat tagccgggca 60
 tgggtgacagg cacctataat cccagctact cgggaggctg acgcaggaaa attgcttgaa 120
 cgcaggagggt ggagggttga gtgagccaa atcgtgccac tgcactctag cctgggtgac 180
 agagcgagac tccttctcaa aaaaaaaaaa aaaaccccaa agtagacata aacttggtga 240
 ggcaggcagt tataagaaga gtagcatgct aaggggaaca gcatgacaag aaaagtacat 300
 aggaacacca gagtttgga agaattgagga aaatgagatt agataagtga gatgggttct 360
 aataggaaaa cctgggcatt actcgaggca ggtctag 397

<210> 1482

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1482

gaattcggcc aaagaggcct atgaacaatg gcaactagct ggtctttgct tcagtttctg 60
 ggactttgtg cctggtttgg tgctttttgt tctgcttctc cacattggaa acatggacgt 120
 catctctatc atccccatcg cctcatcat cctcatggat tgacgggtgca gcaaagtgat 180
 tatcttatta aggagattgt tcagccacag gtcagccaac cacttcctgt gcgtggtctc 240
 gag 243

<210> 1483

<211> 631

<212> DNA

<213> Homo sapiens

<400> 1483

```

gaattcggcc aaagaggcct accgtgcact gttcacatct tgggggtctag aggtcaagaa 60
caaagatcac agacaagacg ttactaaacg gaccctcgca gtaggtcccg aattgcagaa 120
tcattccaatt ccagcatggt cagcacggag atattcacag aaagaaaccc agcaaagtcc 180
tctctgagcc gctagagtca acaagctttt catacacact atggagagcc cagcggccac 240
ataacccttg agaacacagt tccatgtctt ggctaacacg gctctcaccg ctggcctcaa 300
cacccttggg ccatgtctcc tctgtctctt catccccacc acaacgaaga aaggtatgac 360
cgcacgttat atatagtaaa gaagaacttt gagggccgag gacagggccg cagcagcaag 420
ctctctgggt agtgcccttac tgctccaccc acctgagccc tggtccaagt gcaaggagct 480
tcccaaatcc tagagaatga ctgtacttag aaagttttgt tttgtttaag agaaaatggc 540
tttacctgaa tttatgttcc tcatggcaga tatgttacac tccctctac aacagaaaga 600
caagcccagg tggggcccg gcatcctcga g 631

```

<210> 1484

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1484

```

gaattcggcc aaagaggcct acaacaccct cctagcctta ctactaataa ttattacatt 60
ttgactacca caactcaacg gctacataga aaaatccacc ccttacgagt gcggcttcga 120
ccctatatcc cccgcccgcg tccctttctc cataaaatcc ttcttagtag ctattacctt 180
cttattattt gatctagaaa ttgccctcca gaaattggct ggtggaaaaa aatcaaacat 240
gaagattgca gttttgtttt gttttttctt gcttatcatt tttcaaatcg actttggaaa 300
aaatgaagaa attcctagga agcaaaggag gaagatctac cacagaaggt tgaggaaaag 360
ttcaacctca cacaagcaca gatcaaacag acagcttgga attcagcaaa caacagtact 420
cgag 424

```

<210> 1485

<211> 535

<212> DNA

<213> Homo sapiens

<400> 1485

```

gaattcggcc aaagaggcct agcagaccat taaacagctc gaaaatacaa tcagtgaat 60
gagtcccaaa gccctagttg atacctcatg ttcttccaac agagattctg ttgcaagttc 120
atccccata gcccaaggagg cctctcccg acccttgcta gttccggatg aagggtccac 180
tgccctagag cccctacgt cgataccttc agcttcacgt aagggtccca gcggggcccc 240
acagacgagc aggatgcctg tccccatgag tgccaagaac agaccggaa ccctggacaa 300
acccggcaag cagtccaaac tgcaggatcc ccgccaatat cgtcaggcta atggaagtgc 360
taagaaatct ggtggggact ttaagcctac ttccccctcc ttacctgctt ctaagattcc 420
agccctttct ccagctctg ggaaaagcag ttctctgccc tcttctagtg gtgacagctc 480
taacctccct aatccacctg ctactaaacc atcgattgct cctaaccctc tcgag 535

```

<210> 1486

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1486

```

gaattcggcc aaagaggcct acagggaaaa atgttacttt ttgtgtgtgt tttgctttgg 60
gaccttttta ttttggtgtt gcaaaaagta acatattttc atcattgctt catacgacat 120
ggag 124

```

<210> 1487

<211> 521

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (391)

<220>

<221> unsure

<222> (471)

<400> 1487

```

gaattcggcc aaagaggcct aggcactac acaggatggt gcttaccag acggagtttt 60
ggtatcttag tactgaagtt agcactatgt ttacatgcaa aagattaagg aaaaaaccct 120
taaagtggac aggtatccaa agttcatttt ctgtgactca tcaaagtgc aaaagacttg 180
taacaacttt gcctggactt ttttcatttt acaacagttc atccattcac agtgattttg 240
ttctctgctc catatttttt aatcccttaa gcatttgatg aaacactctt tagtgctata 300
tgcattttct tacttttggt aaaaatgtga caattgtcaa aaaatgcact aaaatgtaaa 360
tggagattga acaagttcac tttccagctt nataggcaac tttatacaga cttgaacatt 420
ttctccagtt gtttagtaaa agtgaaagag aaagggtttt tcttgccaca nggatataac 480
ttttttttat ataacaagca taacacacca ctaggctcga g 521

```

<210> 1488

<211> 354

<212> DNA

<213> Homo sapiens

<400> 1488

```

gaattcggcc aaagaggcct acgagacgct tgggtataaa tacaggaaat aatttacttc 60
aaattaacaa ttaagttttt attttgaac taaaaaaaaa atttccagaa gggtttgatt 120
ttctaaaatt taagtcattc agtaattact tacttgctgt ttgctcctac tccagccaca 180
aaccgtttcc gaggatacct gtctttaagt tgttttaaag tcattctggt ctgggctaca 240
accagacat caccaccttt tccaccttct ccacctaaac gaggataacc cattccaccg 300
gatcctcccc tgggtgaagag tcttagctta tcgatgaaat tccatactt tctg 354

```

<210> 1489

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1489

```

gaattcggcc aaagaggcct acccccgtct ggcctagccc atctgcctcc acgtcgcctt 60
gcccaagatg gccagtggcc caggcatggt ggggctcagg ctgcatgtaa ggccacgacc 120
ctgggtcttc tgcaatacaa gtggttttag aaagtgcctc tcggtgact gcacgaacgc 180
ggtgctgggt gagcctgccc tcaccatgag gctgctgaac tccttggtca cgagaaaggc 240
catgagccag ttggtgagga cgcagatgcc tgtcgccacg cccttgacat gcagaggga 300
gatctctgac atgaggagcc aggggatggg cccccagccc accgcaaagc ctgtgggagc 360
gagacaggca agacaggcat cagggtccgc agggctgggc tcctcagctt gctgcagagc 420
caagagaccc agcttcccag cctgtggggc tgtgggggtcc cggatcccag tgtgggtcca 480
ccagctccat gctttctctg caaggcctcg gccagcctct tcctcctca ggcacaggct 540
ctgtctctga gatgggggtca caacggggcc tgctccgag 579

```

<210> 1490

<211> 520

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (432)

<400> 1490

```

gaattcggcc aaagagccta ggaagttcta tgttttgaac agaattcagc aattagtgga 60
attatgttgt tgggtgttag gaagtatata tcatctaggc caggcacagt ggctgacgct 120
tgtaatccca gcacttgggg aggccaaagg gggcggatca cctgaggtta ggagtttgag 180

```



```

accagcctgg ccaacatggt gaagccctat ctctactaaa aatacaaaaa tttggctgag 240
ccaccaagccc cagccatgat cagccttttg atgtctcctt ttgtcaaaaag aaaattgtcc 300
ttgtgttgggt ataaagacat atgctacagg agcagcattc tgaagacttc aatttcaact 360
atggctctac ttcttactag tgaaccacct ggagaagcaa cttaatgtct ctgaacctgt 420
tatctatcat tngtgaaatg ggagataaaa cttgacctgac cctaacccca gcactttggg 480
aggtggaggc gggcggatca cttgagggtca tatgctcgag 520

```

<210> 1491
 <211> 813
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (153)

<220>
 <221> unsure
 <222> (178)

<220>
 <221> unsure
 <222> (185)

<220>
 <221> unsure
 <222> (198)

```

<400> 1491
gaattcgcgg ccgcgtcgac ctaacatgga tagtaatttg aaaccagaag aggttggtca 60
caaggagaaa cgacgaacag agagagcttg ttagaagaga aacttggtgt gaagtctaaa 120
tcaaaaaactc aaggcaaaaca ggtaaaagtt gtngaacacag aattacaaga aggtgccnca 180
aaacnggcaa ccactccnaa accagacaag gagaagaaca cagaagaaaa tgactcagaa 240
aaacagcgta agtctaaagt tgaagacaaa ccttttgaag aaactgggtg tgaacctgta 300
ttagagactg cttcttcttc agcacatagt acacagaagg attctagtca tagagccaag 360
ttaccattag caaaggagaa atataagagt gataaagact ccacttcac caggcttgag 420
agaaagtgtg cagatggcca caaaagcaga agcttaaagc atagtagtaa agacataaaa 480
aagaaggacg aaaataaatc agatgacaag gatggtaaaag aagttgacag tagtcatgaa 540
aaggccagag gtaatagttc actcatggaa aagaaattaa gtagaagggt gtgcgaaaat 600
cggagaggaa gcttgtcaca agaaatggcc aaaggagaag aaaaattagc agcaaact 660
ttgagcactc ccagcggttc ctcccttcag agaccaaaaa agagtgggtga tatgacattg 720
atccctgaac aagagccaat ggaaattgat tctgagccag gtgttgaaaa tgtgtttgaa 780
gtatctaaaa cccaagacaa ccgcctcctc gag 813

```

<210> 1492
 <211> 450
 <212> DNA
 <213> Homo sapiens

```

<400> 1492
gaattcggcc aaagaggcct aatctaaagt tctgagactt attaagggtat taaagtaaca 60
gttttatttt gagatttagc ttgtgttata tggaaatttt cattagcaca atgtgttgag 120
gtgagacttc atggaaaagt actgtaaaaa acaaaaaaaaa gtccttactt ccattcagtt 180
taccatcatg gatccaaact aagggtaaag ccagtacatc ctaatatgtg cccaacccat 240
aacttttaaat gattaaatga aacacacaac agggagatct attgttaatg tgttaaccaa 300
aattgccagg aattgcccta aaggggaaaa attgtttaat cagtaaatca gtgaggaaat 360
acaagattat aaattagaag tgttgctatg gtgttagctc ttacatccct gaacaacaaa 420
aaagacagtt caacccaag cattctcgag 450

```

<210> 1493

<211> 184
 <212> DNA
 <213> Homo sapiens

<400> 1493
 gaattcgcgg ccgcgtcgac ggaaacatct ttgttgtttg attcattccc agggagtgc 60
 tttgggaatag gggagactag agtttatact tctgggtgtag ttactttact tgtgcaaata 120
 gacagacatt ttaaaaaata ttatctttta catgagaaga gatattgaga aggctcgact 180
 cgag 184

<210> 1494
 <211> 656
 <212> DNA
 <213> Homo sapiens

<400> 1494
 gaattcgcgg ccgcgtcgac cagcaaacaa cagtttttac accagtagca agacttccta 60
 ttgttaactt tgattatagc atggaggaaa agtttgaatc cttttcaagt tttcctggag 120
 tagaatcaag ttataatgtg ttaccaggaa agaagggaca ctgttttgta aagggcataa 180
 ccatgtacaa caaagctgtg tggtegcctg agccctgcac tacctgcctc tgctcagatg 240
 gaagagttct ttgtgatgaa accatgtgcc atccccagag gtgcccccaa acagttatac 300
 ctgaagggga atgctgcccgt gtctgtctcg ctactgtctc ctattctcta ctcagtggta 360
 tagcattaaa tgatagaaat gaattttctg gtgattcttc agaacaaaaga gaacctacca 420
 atttacttca taagcaactg ccacctcctc aggtgggaat ggaccgaata gtaagaaaag 480
 aagcacttca atctgaggag gatgaagaag tgaaagaaga agatacagag caaaagagag 540
 agaccctga atctagaaat caggggcaac ttacagtga gggggacagc agaggaggag 600
 acagaaagca gaggcctgga gaggagagga ggctggcaca ccagcaacga ctcgag 656

<210> 1495
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 1495
 gaattcgcgg ccgcgtcgac cctcgacgga gacgtggcag gcgaagcggc tcagcagggg 60
 gtgtttgggt atgaagccga aatagcagct gttgcgggga tggcagccgc agaaggagat 120
 gttcttctac tggaagaaat ggctgcagcg ctggaactca ggccctcctc cgtcagact 180
 cagcttgacc ccccgaaagag agatctcgag 210

<210> 1496
 <211> 760
 <212> DNA
 <213> Homo sapiens

<400> 1496
 gaattcgcgg ccgcgtcgac gatttgggggt gttctttttg tttgcttgggt tgggtgggtt 60
 ttattggggc ttccccctc aagtctctctg atgggcatga gtcacctcc ggctgggggt 120
 tctcatcgt gtcaatgtcc gagccgcaag ctatttgcta agcacagggt acggccccctc 180
 tgtgtctcgg ggagcactgg ggatttgaaa atgccagtca gggttgttct ttacagaatt 240
 cgttcctgta acaatagtaa tactaagggc tgcatctcag gctgaccaca gggcaggtgc 300
 caagttaagt gttttcatgc actccctctc tcaccacctg ggaggcaggt atgattaacc 360
 ccctgcagaa aaactcacag tggggaagcg gtgccggaac ccaaagtcca ggctccaact 420
 ccctggacgt gacatgctcg ccagccgggg tacaccctgc acaatgctgg gagcatctcc 480
 ttgatgcctc caccatcacc gcctggagcg ctgatccact cagcacattc tggctaagca 540
 tctgtctgtg gccaggcccc gtgctgggca gtgatgggaa tgaaagatga gttagatctc 600
 atctctgccc ccggggagcc tcccatctgg tgggagacac agacacgtgg atctttgctg 660
 gaaagggtaa caaggccatg gaaacccagg caggagcggt ctagaaatcc atccactttc 720
 aagtaggact tccatgcccg taacatccag cccactcgag 760

<210> 1497

<211> 711
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (110) .. (111)

<400> 1497
 gaattcgcgg ccgcgtcgac cggggaacc caccctcggg atctgtcaag tctgtcccca 60
 ggggagggtcc ccctttcggg aggaagtttt taaggggatt tctcaaaatn nccccgcgc 120
 ttccttctact ccttccttag agccggagggt cgcgcgcagg gaccatgtcg gcggagaccg 180
 cgagcggccc cacagaggac caggtggaaa tcctggagta caacttcaac aaggtcgaca 240
 agcacccgga ttcaccacag ctgtgcctca tcgcggccga ggcaggcctt tccgaggagg 300
 agaccacagaa atggtttaag cagcgcctgg caaagtggcg gcgtcagaa ggcctgcct 360
 cagagtgcag atccgtcaca gactaaggag atggcaggca tgcacagctt cactccatga 420
 aggccatctc tgtttctctc ctccgcttaa ccaagctgtt gtgggttttc agcatagtgt 480
 tgtatgttcc attgctagct gtcctgtctg ttaacacagt gttgtatttt ttttctaaat 540
 gtacataatt agaaaaagaa ataacaatag gaagctatgt gtatcttctg tgtaaagcag 600
 tggcttcaact ggaaaaatgg tgtggctagc atttcccttt gagtcatgat gacagatggt 660
 gtgaaaacca tctaagtgtt cttttgacca tcacctccca gtacgctcga g 711

<210> 1498
 <211> 662
 <212> DNA
 <213> Homo sapiens

<400> 1498
 gaattcgcgg ccgcgtcgac ccaaacagag ttatctgggt ccacatccat gtgccagct 60
 attctgtcca atcatagcac aaagacaggt tgcctgtgtc cagagggaca cacagcctca 120
 ggacacaccag cccttactta tgagcttgat ggtcatcagc aaagactctc tccctttagg 180
 aggggttctcc ttgggacttt tcagtgtctt ggcaggaaag agatggcaca cacgaagcac 240
 tgattgaaga cagtttaatg aaagaatatt tacagaggtt gggcaagggt atggaaaaca 300
 acagggaaaca gtaaaacacc cagggatgac aaggcaagggt agctcatgtc tgtaattctca 360
 gcactttggg agggcaaacac aggcagattg cttgagccca ggagtttgaa accagcctgg 420
 caacataagc aagaatctgt ttatctacaa aaaataaaat aattaaaaaa aaattacctg 480
 gctgtggtgt tgcacaccta tagtccagc tactcaggag tctgagggtg gaggatcact 540
 tgagtccagg agtttgagggt tacaatgagc taggatcaca ctactgcact ccagcctagg 600
 cgacaaagag agatgtctgtc tctaaaaata aaaaacaaaa acaaactgcc cagggaactcg 660
 ag 662

<210> 1499
 <211> 695
 <212> DNA
 <213> Homo sapiens

<400> 1499
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 ttagtccag gaccagacgt cagtctaaca gggcaaccaa ggagatacaa ttacatcaga 180
 tgaagaagtg gcacgaagaa gtgactgcat acagagatga agttgaggaa gtgggagcta 240
 gagctcagga gatactggac gagagccacg tgaacagcag aatgggttgc caggccaccc 300
 agctgacttc cagataccag gccctgcttc tccaagtgtc ggaacaaata aaattcctgg 360
 aggaggagat tcagagtgtt gaggaatcag aatcatccct cagttcctat tctgattggt 420
 atggctctac tcataaaaac ttcaagaatg tggctaccaa gattgacaaa gtagatacag 480
 taatgatggg gaagaaattg aagacgttgg aggttttgct caaagacatg gagaaaggtc 540
 acagtttgc gaaatcagcc cgggagaaag gagagagggc tgttaaatac ttggagggaag 600
 gcgaggcaga gaggttaaga aaggagattc atgatacat ggagcagttg aaggaaactga 660
 ccagcactgt ccggaaaagaa cacaggacgc tcgag 695

<210> 1500
<211> 626
<212> DNA
<213> Homo sapiens

<400> 1500
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tggacatgtt cacctgccca tgtttaggat gaaagtcata aagttagggg aagggaaaga 180
agattaaaga ctgctatagt gaagtaatga gggagaaaga aattaaaagg aaggacacaa 240
agcacatttt aaacatgcat gaatcaaatt actgttggtt atgctgacag tgtttgttgc 300
ttaatgaact aaccacatca agcaaagata ggtttgactt cagggtctgc tggatctggg 360
gactcaaaact gtatcatgca tccgactgtc tctgtttctg taaaacattg tcttattctg 420
ccttctattg ctataagtga ataataaga ctgggtaatt tataagggag agaggtttat 480
ttagccca gttctggaga ccaggaggtc caagattggg cagctgcatt tgatcagctt 540
ctggtgaggg cctcgtactg ggtcttaacc cagcagagaa gaagaagggg aagtgggcac 600
aagcaaaagac gtcaagcata ctcgag 626

<210> 1501
<211> 509
<212> DNA
<213> Homo sapiens

<400> 1501
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cagccatgct ttcctatact tgttcaaagg atcgatggac cgtaaataag ctgccattaa 180
cacatctggt tactgctgta acatgactaa taaaaccgaa cgctgttcc ccttaccctg 240
gtgggggaca cgcagatgag tgaattggaa tgtccagcag agttaccctc ccaattatat 300
gttcattttg tatattttt ggtaggggaa aaaattgacc tgcagtaaaa aaacctttga 360
ccatttttat gtccattgga tactttcctt tttatcatct taaaaaaaga taactagtac 420
taatcattgt agtggcctaa gtgtgattta actcttgaag tcacaccctc cgaaagatga 480
gtagaaacca gcaccagcac agtctcgag 509

<210> 1502
<211> 770
<212> DNA
<213> Homo sapiens

<400> 1502
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cagaaaaattc acaactaaat gtgaagataa gtggcatgga gagaaaatca aatggaaaaa 120
gagattcatt tttggcacia acaaagaata aaaaagaaaa tatgaaacca gcagccaaac 180
tgaaacttga atcttcgtct ttaaaagtaa agggtgaaat tcttttgtaa gaggaaaagt 240
ctactgactt tgtgtttata cctccagaag gaaaagatgc aaaggaaaga atattaactg 300
atcatcaaaa agaagttctc aaaacaaagc ggtgtgatat tcctgccatg tataataatc 360
tggatgtttc ccaagatacc ttatttactc agtatagtca ggaagagcct atggaaattc 420
ctactttaac cagaaaaacca aaggaggatt ctaagatgat gattacggag gagcaaatgg 480
acagtgcacat tgtcattcct caagatgtca cggaagactg tggataggct gaacatcttg 540
aaaagtcctc cttttcgaat aatgagtgtg gttctcttga caaaaccagt ccagaaatgt 600
caaacagtaa taatgatgaa agaaaaaag ctttaatttc atcaaggaaa acatcaactg 660
aatgtgcac tagtacagaa aattcttctg ttgtcagcag tagttcagtt tctaatacca 720
ctgttgctgg aactcccca taccctacaa gtcggaggca tgaactcgag 770

<210> 1503
<211> 870
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (147)

<220>
<221> unsure
<222> (168)

<220>
<221> unsure
<222> (182)

<220>
<221> unsure
<222> (336)

<220>
<221> unsure
<222> (339) .. (340)

<220>
<221> unsure
<222> (386)

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agaatattac caaagaaggt ggcttanttg acatggccaa gaaagaanat gacttaaatg 180
cngagcccaa tttaaagcag acaattaaag caacagtaga gaatggcaag aaggatggca 240
ttgctgttga tcatgttgta agcctgaata cagaaaaata tgctgaaact gtcaaaactta 300
agcataaaaa gaagcccagg taaagtaaaa gacatntcnn ttgatgttga aagaaggaat 360
gaaaacagtg aggtagacac cagtgttgga agtggctctg caccctctgt ttacaccaa 420
aggaacggac aaactgagga tgtggcaact gggcctagga gaggcagaaa gacttctgtt 480
gccactagta ctgaagggaa ggacaaagat gtcaccttaa gtccagtga ggctgggcct 540
gccacaacca ctcttcaga aacaagacaa agtgaggtgg ctttgccttg caccagcatt 600
gaggcagatg aaggcctcat aataggaaca cattccagaa ataatcctct tcatgttgg 660
gcagaagcca gtgaatgcac tgtttttgct gcagctgaag aaggtggggc tgttgtcaca 720
gagggatttg ctgaaagtga aaccttcctc acaagcacta aggaagggga aagtggggag 780
tgtgtgtgg ctgaatctga ggacagagca gcagacctac tggctgtgca tgcagttaaa 840
atcgaagcca atgtaaatag cgtgctcgag 870

<210> 1504
<211> 713
<212> DNA
<213> Homo sapiens

<400> 1504
gaattcgcgg ccgcgtcgac gtgaacaaat attagtataa gcatcagatg tgcaaaattg 60
ggctctaaca gaacactgtc cttggggcct tcatacaaaag aaaaatgcac tgaaggccgg 120
gcgcggcagc tcacgcctgt aatcgagca ctttgggagg ccaaggcagg tggatcactt 180
gaggtcagga gttcaagact agcctggcca acatgatgaa gccccatctc tagtaaaaaat 240
acaaaaatta gctggaagcg gtggtgcaag cctgtagtcc cagctactcg ggaggctgag 300
gttggagaat cacttgaacc ctagaggcgg aggttgagat gagccgagat cgtgccactg 360
cactccagcc tgggcaacag agcgagactc catctcaaaa taattaaaaa aaaaaaatag 420
aaaaatgcaa tgaagtgtta ttgagcgttt ttaagggaga aggcaaggat ggcacacca 480
gtcgggtcac ttgtgcatcc agaagagatg gaaggtgttt caagtgaagg aaatcatatg 540
agtaggggga ggaggtggca aatatgcctg cgtatccaca gaactcacc accgtgtgtg 600
gagtgaaggac tgccacgtgg cgtgtgtggg gttgcatgga tcgacttggg tgggcaagtg 660
gaggaaggcc tgagatccta cgaacacaga ggcagtcacg aagtgggtctc gag 713

<210> 1505

<211> 682
<212> DNA
<213> Homo sapiens

<400> 1505
gaaattctca ggcagtcaga ctgtcttagg caaatcttga taaaatagcc cttatccagg 60
tttttatcta aggaatccca agaagactgg ggaatggaga gacagtcaag ggttatgtca 120
gaaaagggatg agtatcagtt tcaacatcag ggagcggtag agctgcttgt cttcaatttt 180
ttgtctcatcc ttaccatttt gacaatctgg ttatttataaa atcatcgatt ccgcttcttg 240
catgaaactg gaggagcaat ggtgtatggc cttataatgg gactaatttt acgatatgct 300
acagcaccaa ctgatattga aagtgggaact gtctatgact gtgtaaaact aactttcagt 360
ccatcaactc tgctgggttaa tatcactgac caagtttatg aatataaata caaaagagaa 420
ataagtcagc acaacatcaa tcctcatcaa ggaaatgcta tacttgaaaa gatgacattt 480
gatccagaaa tcttcttcaa tgttttactg ccaccaatta tatttcatgc aggatatagt 540
ctaaagaaga gacacttttt tcaaaactta ggatctatgt taacgtatgc cttccttggg 600
aactgccatc tcctgcatcg tcataggggt aattatgtat ggttttgtga aggctatgat 660
acatgctggc cagcacctcg ag 682

<210> 1506
<211> 668
<212> DNA
<213> Homo sapiens

<400> 1506
gaattcgcgg ccgcgtcgac gtctcactct gttgcccagg ctggagtgca gtggtgtgat 60
ctctgctcac tgcaacctcc acctcccagg ttcaagtgat tctcctgcct cagcctccca 120
attagctggg attacaggcg tgcaccacca cactcagcta attttttagt ttttagtaga 180
gacgggggttt tgccatgttg gccaggctgg tctcaaatc ctgacctcaa gcgatctacc 240
ctccttggcc tcccaaaaatg ctgggattac aggcgtgagc catcgtgcc agccttcacc 300
cggtagttaa atgtggcttt gtagaagaat cagtatttcc ctccttagag tccctctgtg 360
acttactttc taacatagct ccactgtatc tcacaggacc ccggtatgcc cagcccccat 420
ccttcccaaa ttcacccgct tcttccccct ctcttcgggt ttactctgct ttagecgtgc 480
ggatcttctt tccattatgg aatatgtccg gactactccc acccgtcaga ttttgtactt 540
gtggttccca ctagaagcat ccagaatgtt tttcctctct accctccccc attctttcat 600
tggatgacct tattctcatt cttctggtta taatcagggt taacacctct ctgaccacct 660
cactcgag 668

<210> 1507
<211> 636
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (137)..(138)

<220>
<221> unsure
<222> (147)

<220>
<221> unsure
<222> (159)

<220>
<221> unsure

<222> (161)

<400> 1507

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gaattcggcc aaagagccgt agatttttat tctgccatt aacagtgnntt tgaacccaat 60
tctctatact ctgaccacaa gaccatttaa agaaatgatt catcgggtttt ggtataacta 120
cagacaaaga aaatctnntg gacagcnaag gtcagaaanc ntatgctcca tcattcctct 180
gggtggaaat gtggccactg caggagatgc cacctgagtt aatgaagccg gaccttttca 240
cataccctcg tgaaatgtca ctgatttctc aatcaacgag actcaattcc tattcatgac 300
tgactctgaa attcatttct tcgcagagaa tactgtgggg gtgcttcatg agggatttac 360
tggtatgaaa tgaataccac aaaattaatt tataataata gctaagataa atattttaca 420
aggacatgag gaaaaataaa aatgactaat gctcttaca agggaagtaa ttatatcaat 480
aatgtatata tattagtaga cattttgcat aagaaattaa gagaaatcta cttcagtaac 540
attcattcat ttttctaaca tgcatttatt gagtaccac tactatgtgc atagcattgc 600
aatatagtcc tggaagtaga cagtgcagaa ctcgag 636

```

<210> 1508

<211> 837

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (754)

<220>

<221> unsure

<222> (806)

<400> 1508

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gaattcggcg ccgcgtcgac aaatcctcaa gctggccttt aataattttt atgtccagca 60
tttttttcat gcaattcatt tctaaggttc aatttttttc ttcctaaagt gtcacctttg 120
gtagattttt cttcaggggc tgcaattagt aaattttctc attgattaca tatttgaaaa 180
gggtctgttag tcttgtctggg tatagaattc aagatgatga ttacattcgt ttgctacttt 240
gaagatgtta ttttctcaaa ctattagatt ctggttctat taaagactgc tgttgggtcta 300
acagttttctc tgaggtaatc tgcctttgat ttatgcttgc ttttaagatt ttctccttgc 360
ctgcgatgcc ttacatgttc actataatgt gggtcggggg attgatttat tacttgtctt 420
gctaaggggt gattgactgt cataacccta gaatttatca tttctggaaa actgcaaatt 480
tggtataaatt attcaagttc ccgtgttagt ccacttctca aaaccttca gtgtctccct 540
catttactgc cagtattact actcaggact ggcattgatc agccctgca catttctgta 600
attaagtttc ccattaatc catttctgtc tgccaggaaa tccccatgac tcaaactggg 660
gatgctatct ctgtttcata actcagctca actttaccta cctcttaaag cctttcctga 720
aacctgttct tctccctagc cactctctgt ttgngtacct actctttcct gctcataggt 780
ctgttagtta ttgcatttat ctattnatgt gtaaaatttt cccctctctg actcgag 837

```

<210> 1509

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1509

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gaattcggcc aaagagccct aattttatgc atttgctttt cttatttttt tggttgtctc 60
agttatctcg catgttattg agttttttta agatgattgt tttgaattgt caggcaattc 120
tcgag 125

```

<210> 1510

<211> 760

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (349)

<400> 1510

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gaattcgcgg ccgcgtcgac cgactccagc atccagtgtc accatcatgg ctacagatac 60
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gaccaccctt ggtgtatcca gtgactcacc ggggactaca accctggctc agcaagtctc 180
aggcccagtc aactactaccg tggctagagg aggcggctca ggcaacccta ctaccaccat 240
cgagagccccc aagagcacia aaagtgcaga caccactaca gttgcaacct ccacagccac 300
agctaaacct aacaccacaa gcagccagaa tggagcagaa gatacaacna actctggggg 360
gaaaagcagc cacagtgtga ccacagacct cacatccact aaggcagaac atctgacgac 420
ccctcaccct acaagtccac ttagcccccg acaaccctact tcgacgcata ctgtggccac 480
cccaacaagc tcgggacatg accatcttat gaaaatttca agcagttcaa gcactgtggc 540
tatccctggc tacaccttca caagcccggg gatgaccacc accctaccgt catcggttat 600
ctcgcaaaga actcaacaga cctccagtca gatgccagcc agctctacgg ccccttcctc 660
ccaggagaca gtgcagccca cgagcccggc aacggcattg agaacaccta ccctgccaga 720
gaccatgagc tccagcccca cagcagcacc aactctcgag 760

```

<210> 1511

<211> 471

<212> DNA

<213> Homo sapiens

<400> 1511

```

gaattcggcc aaagaggcct acttctctag acaaagaggg tctgtcagca ttaagctggg 60
cttgtctgaa aggtcacagg gcagtgggtc agtatctggt tgaagaagga gctgcaatag 120
accagacaga caagaatggc cgcacaccct tggacctggc tgccttctat ggcgatgccg 180
agactgtgct gtacctgggt gagaagggag ccgtgatcga gcagtgtggc cacagcggga 240
tgcggccctt ggacagagcc atcggctgcc ggaacacatc tgtagtgggt gcgctactca 300
gaaaggggag caagtttaga aatgctgctt gggcgatggc cacttccaaa cctgatatct 360
tgattatact ttacagaaa ttaatggagg aaggaaatgt gatgtacaaa aaagggaana 420
tgaaagaggc agcccagagg taccagtatg ccttaagaaa gtttctctga g 471

```

<210> 1512

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1512

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gaattcgcgg ccgcgtcgac gttaattcta gtactgtact atcatgttaa ctttttttgg 60
tgacatagcc tggtagtagt gataagttta tttcatcgat tctctcattt gtttctgaca 120
gcacagagag atgtatatct tctttcttcc tttatttttt ttgagacaga gtctcactct 180
gtcgcccagg ctggagatca gtgtgacacg atcttggctc actgcaacgt ccacctcccc 240
gaatctcgag 250

```

<210> 1513

<211> 620

<212> DNA

<213> Homo sapiens

<400> 1513

```

gcagttgacc tagaccagtt ccagtatttc cagtttgacc gtgtttgacc tacactgagc 60
ttcgggtgct cagtgggtcat aatttttagca agtggaccta taggaagcaa ccctgggagg 120
gaccgtcctt ctgcagaggg ctgcgggcat tgaggctatc aatccccagg gcttggggag 180
caggagggga gggcaccaag tgctcttact ctcttgagct ccttttgatg cgtaagcttt 240
gtttttggcc ctctttgaag gcagggccaa acttttctta gtgcctctca ccttaggggtg 300
gccctccagg gaaggtgctc ctggaatggc tggattggcc ctgcccaccg tcaaaactgt 360
acatgttaga atagctgatg aggaataaca caaggcctca gtgccccttg gcctctttac 420
aaaagggaag gttggaaggg gattgtggga ggagcccctg ggggcctggg ctgtcctcca 480
ccagaacttg gatttgctgc cagcagagga tctgtgcctc agctgaagac tagctccgga 540

```


atgtcatagg ggtgtgactg tgtaggcctt ctctctctcc tegtcttctgt ggcattggcac 600
agggttgccctg gttgctcgag 620

<210> 1514

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1514

gaattcgcgg ccgcgtcgac cccatttaaa aagttatttt ttattattat tgagttcctt 60
atagtttcta gatataagcc cccctatcat acatgcttta cagaagtttt taccattctt 120
gtggaatata tatattttta tttctttgca tactctttct gccccacca catctctttt 180
ctgggacact gatgacaaa atgttgaatc ttttactatt gtccccgagc ctcgag 236

<210> 1515

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1515

gaattcgcgg ccgcgtcgac atgaggctct gcctgtggag atgcaggcac ctgagccaag 60
gcgtccagtg gtcccttgett ctggctgtcc tggctctctt tctcttcgcc ttgccctctt 120
ttattaagga gcctcaaaca aagccttcca ggcattcaac cagagagaac attaaagaaa 180
ggtctctaca gtccctggca aagcctaagt ccaggcacc cacaagggca aggaggacaa 240
ccatctatgc agagccagtg ccagagaaca atgccctcaa cacacaaacc cagcccaagg 300
cccacaccac cggagacagg 320

<210> 1516

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1516

gaattcgcgg ccgcgtcgac attctagacc tgccctgggc accccctcc tgccctgggc 60
acccctcc tgccctgtgct ctgcctcagt taccctctt cctgcccatt ttctgcctgt 120
tacaccaact cctgcccttg gtcacctgc tctgcctgt gctcggcctc agtcaccccc 180
ctctgcctc agtcagcccc tctctacct atgctctgcc ttggtcacc cctctcctgc 240
ctcagccacc ccctctctc gag 263

<210> 1517

<211> 729

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (33)

<220>

<221> unsure

<222> (36)

<220>

<221> unsure

<222> (96)

<400> 1517

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tgagtcacaa tctctcaggg aagaggetca gcatangtcc tgctctctct aagtcagtcc 120
aactgggact gggaggacca ggggtgctgag atgcggcaga gacaaggcct aggacttgga 180

```

agtcttacta gaacatggta gctccgcacc ccgcatagcc acgtggctgg ggtgtgagag 240
caaagaggca ggctgcaaga caagggagtt tgaacacggt gtcgttgaaa gaattaaacc 300
aggtgtgtgc ctgagcacct ttagcccaact gcctggcttc agaaatgcaa gcttgcgtgc 360
cgtccacccc agggcccttaa ataatacaag ttaattgaaa gagtttaatt tgaattaatg 420
agattctgtt aaaatattgt taacagttaa gtagataatt attctatgaa caaaacaaat 480
ggctcctgca gggctctatgt caatgaatag acaccttcat ttacagttag gatccttcaa 540
ctccaacaga atgatgtaaa tctgttattt gcagaggatt aattaagagg gaaatgaata 600
aaaacagtaa caaacaggtc cccgtctaga tgcagcgggc gggtgacagc aggctctcga 660
ccgttgtttc gatgcaaagt gtaaataatg cattttgccc ttacctttgc cttcacgac 720
taactcgag                                     729

```

<210> 1518

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1518

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gaattcgagg ccgcgtcgac gccagcagtt cgcagcatgg actcgggtatt ggtatttgg 60
acaggtaatt ggcttctgct cacattaatt aatttattgg aggcctgggtc tctctcttc 120
acccaagctg cagtgcgggtg gtgccatcat agctcactgc agcctcaaac tcctggggctc 180
gag                                     183

```

<210> 1519

<211> 692

<212> DNA

<213> Homo sapiens

<400> 1519

```

gctcgatgtc gctgttcttg caggctcttct gcatggcctc ctgcttgctg ctttcacccat 60
tgctgggtgga tggcatctca tcaactggccc atttagagaa ctcagggtgtg atgcgcgtgc 120
tggggagggcc gccatttagg actgcgcccc gaagtgcctc tctctccttg gcttcaccag 180
gctcctcgcc tgtgcagggg atgacatcag cctctgtgta ttgtggcttc ccatactcca 240
gagtgtcatc cccatccaca tccaagtcag catcactgtc cgggttctct ttgccgctgc 300
acatgatgaa gccagagcct cgggaagccac cttccaggag agtgggtggc cgtatccgct 360
tctgtccaca ccaactcaca tcctcaaagc ggttggtgtt ctcagtctcg atgtccacag 420
catcatcctc agccatgcag gagccttccc tctgcccttc atcttgcttc ctccgtttca 480
tttbcccaat ccgagcattc agtcgggtct gccgggtggc tcgtactcgc agaaaggctc 540
ggtatctgtc tgaatgggtg aggtcatcgg tggcagatga gtgggggtgat gccgttggag 600
actctccttc cctcttgatg gaagcagaca acaggaggga ctttgggggt cctggagcca 660
tggcatcctt cagaaggga tcttgctcg ag                                     692

```

<210> 1520

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1520

```

gaattcgagg ccgcgtcgac ccactcccgg ctaattttgt atttttggta gagatagggt 60
ttctccatgt tggtcaggct ggttttgaa tcccgcctc agatgatcca cctcagcctc 120
ccaaagtcct gggattacag gtgtgagcca ccgtgccggg cctttctctt ttttttttt 180
ttttttttt aagagactaa gtcttgctct gtcaccgaag gtggagtgcg gtgacagcat 240
catagttcat tgcagtctca aacaccagg tctcgag                                     277

```

<210> 1521

<211> 261

<212> DNA

<213> Homo sapiens

<400> 1521

```

gaattcgagg ccgcgtcgac caaggatatt agaacgtgtt ggttccgct gcttccgtct 60

```

```

tgagttatgt gctgctattg tcggatattt tgtcttagat gtacgtactt tctgttcat 120
tgtgggtatgt gtaatttgcg ttactttgaa tttccacgt ttttacttct tttgtctctc 180
atcaacttact gcttttgga cccccccat cgggggtcac attccctctc cctagagcac 240
actcccttgg atttctcga g                                     261

```

<210> 1522

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1522

```

gaattcgcgg ccgcgtcgac atttaattta catatgtcct tggcatccac aaatattgct 60
tctcctttca accagcatgc cacccttcca gccattcaca tatgtattca ttcattcatt 120
catttattct ttcattcagt caataaatat ttattgagta gtaatgcact cgag      174

```

<210> 1523

<211> 512

<212> DNA

<213> Homo sapiens

<220>

<221> unsure.

<222> (27)

<400> 1523

```

gaattcgcgg ccgcgtcgac gacggangca gctttctagg gctggaagtc tcaaatagaa 60
ctcacctgtt ccccaaccag gggccccag gttcagctca attgttatca tgggtaccag 120
ccaggaagct gtttgtgga aggatgggac ttaactcagg agtggttttag gtatggacat 180
gtgtcagtat tcacaaaaca ggcaatatat tcattataga tgcaatcatg aaacttcct 240
ccagagaagg ctacatctc ccctttcacc taggaagctc cttagcttga aggcccacca 300
cggctctgac ccagcctcca cccagccca aatgaactcc catttaattc cttggacatg 360
ccatgacgtt caeggtcttg catacttgcc aataactgtt cttccagcct acctgtcttg 420
ctccctgccc cactgtcct tgtcaaagga acgataactc ttcagctttg tcaagtcctt 480
gtttactcct gttctcccca ccaggactcg ag                                     512

```

<210> 1524

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1524

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccggc ctccacccaa 60
taagcaaact ggagattcct cagcctctcg tggacaccca catctcattc ttctcacagc 120
agagaagctc tcccttcagc ctgagctgtc ttctttctgc tgcagtgcag cctgctccct 180
cctaccctgg cctcaaggaa ggtgggaaac atcttctgca ttcaaagtc ctcaactttga 240
cttatttggc cttcatcttg gcatggaagg tggcaggcag aatggaaata ctccccccaa 300
acaaaacaga tattcttgcg tgtgtaaggg cagaaggac aagctctcta tcccatgaga 360
ctaggggccc gagccacct gcctttcccc acaacttttc ctgctcaaac cccgtcctcg 420
ag                                     422

```

<210> 1525

<211> 108

<212> DNA

<213> Homo sapiens

<400> 1525

```

gaattcgcgg ccgcgtcgac tgaaagaatg cggttctgtg ttgtaattcg tgctgtagtt 60
gcatctgaat ttgtgctggg gactgtggtg ggtgatgtgc aggttgag      108

```

<210> 1526

<211> 124
<212> DNA
<213> Homo sapiens

<400> 1526
gaattccttc gggctgactt cccaactcaa ttacagaact gaacagatct ccacacttac 60
ttttcagtga tagtcattgc aaaactacac tttaagaaca acttggaaga tgctttttct 120
tctt 124

<210> 1527
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1527
gaattcgcgg cgcgctcgac aaaggctgca catcaacaac aacaagatca agtcttttctg 60
aaagcagact tttctggggc tggacgatct ggaatatctc caggctgatt ttaatttatt 120
acgagatata gacccggggg ccttcacagga cttgaacaag ctggagggtgc tcatttttaa 180
tgacaatctc atcagcacc cactgcca cgtgttccag tatgtgcca tcaccacct 240
cgacg 245

<210> 1528
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1528
gaaaagtatc tcatatatag tatgtcccaa atagaatcat tgagttcccc ctttccctcc 60
ctaaggcttc accatcagct ttgtgacttt ctatttctac ccatttggtc tgaactctac 120
ctgtcagcct caatctctct tgttctttca ctgtccaaat ctgecttccc tccctcatcc 180
aagacatggt tgattcttgt ctggactctt gaaacaggct tgtacttcac acttctacct 240
tcactgttgc ttctgcagtc aatcgatccc ctcgag 276

<210> 1529
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1529
gaattcgcgg cgcgctcgac atccggttta cttttttatg tttttaccaa ctttcatttt 60
tatcatctgg cttacatttt tacttttact atcagactta gatttcttaa aaaagagaga 120
gttttaggagt attctcgag 139

<210> 1530
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1530
gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagaaac 60
ccctcacaat catggcaagc caacgccact tatccagtga accactatca cgaaaaaac 120
tctacctctc tataactaate tccctacaaa tctccttaat tataacattc acagccacag 180
aactaatcat attttatatc ttcttcgaaa ccacacagct cgag 224

<210> 1531
<211> 586
<212> DNA
<213> Homo sapiens

<400> 1531

```

gaattcgcgg ccgcgtcgac acagaaacta ccatttgaca ccacggacct cattacatac 60
agcatctagt acaatgtaca gtaataccaa tccattacgg agtaattctt ctccctcattt 120
tgcattcatca aaccaattga gattatcaca aaacaaaaac aattaccagc tacaggaccg 180
cactcagttc agtgaccgag acttagccac ccttaagaag tattgggaca atggcatgac 240
cagcctgggc tctgtttgta gagagaaaat tgaagctgtg gcaactgaat taaatgttga 300
ctgtgaaata gttcggactt ggattgggaa tcgaagaagg aaatatcgtt taatggggat 360
tgaagttcca cctccaagag gaggcctgc tgatttctct gaggcctg agtctggttc 420
tttatctgca ctacaccag gagaggaagc tgggcctgaa gtaggagagg ataatgacag 480
aaatgatgaa gtatccatct gtttgtctga aggaagctct caagaagagc ccaatgaagt 540
tgttccgaat gatgcaaggg ctcataagga agaggacccc ctcgag 586

```

<210> 1532

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1532

```

gaattcgcgg ccgcgtcgac atgaaggaac aggagaaaagg agaaggaggat gatagtaagg 60
agagtcctaaa aaccaaatac gatgaatcag gggaggaaaa gaatggagat gaggattgcc 120
agcgaaggcgg gcagaagaag aaaggaaaca aacacaagtg ggttccatta caaatagaca 180
tgaagcctga agtgcccaga gagaaactgg cttcacgccc cactcgccca ccggaaccac 240
tcgag 245

```

<210> 1533

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1533

```

gaattcgcgg ccgcgtcgac ggcagaccca tctatttgtt gcttctgccc tgctatagac 60
agagaatcag acaaccaaac tcactggaat gatgtgtaag gaaggagagg cagcctttga 120
aggggtgaca ggtacaatcc tgttaacttg ttccatatct ctgagcttgc tgctgtctgt 180
tctggctgct gaaccccacg ctctcgag 208

```

<210> 1534

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1534

```

gaattcgcgg ccgcgtcgac caagccattg tatttatctt cctaaatatt gataatttat 60
aacctttgat tatctagtga gttgttgccc atttcttatt ttaaagtatt tcagtgtata 120
ataattaaat atataatttt ttcattgtgt ttgcaaattt ttttatgtgc ttgcaaata 180
ttttttccca tctcttcatt tgtcgtttga ttctgtttat gctgttcttc cccctactcg 240
aggca 245

```

<210> 1535

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1535

```

gaattcgcgg ccgcgtcgac ggagcaactt catataatgc aagaacagca gaaatctttg 60
gatataggaa atcaaatgaa tgtttctgag gagatgaaag ttacaaatat tgggaatcag 120
caaattgaca aagtttttaa caacattgga gcagaccttc tgactggcag tgagtccgaa 180
aataaagagg acgggttaca gaataaacat aaaagagcat cacttacact tgaagaaaaa 240
caaaaattag caaaagaaca agaacaggca ctcgag 276

```

<210> 1536

<211> 107

<212> DNA

<213> Homo sapiens

<400> 1536

gaattcgcgg ccgcgtcgac aatatagcaa ggagagccaa agctatttct agttaattca 60
 ttatgcataa tatagcaagg agagccaaag ctaagacctg cctcgag 107

<210> 1537

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1537

gaattcgcgg ccgcgtcgac gctgctttct gctaagtctt gatccatctc ctcttggtctc 60
 ttctccatat ctagtctacc ttctcttagg acatcactga agaggctcatt aattactttc 120
 gaactattga tatcatcatc atccacactc atctcaattt cacttatcac ttcaattttc 180
 tgctcaacct ttgggtctga tgttactttt aaggatttgt cctcttctcg ag 232

<210> 1538

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1538

gaattcgcgg ccgcgtcgac accatgatga aacgggcagc tgctgctgca gtgggaggag 60
 ccctggcagt gggggctgtg cccgtggtgc tcagtgccat gggcttcact ggggcaggaa 120
 tcgcccgcgtc ctccatagca gccaaagtga tgtccgcagc agccattgcc aacgggggtg 180
 gtgtttctgc ggggagcctg gtggctactc tgcagtccgt gggggcagct ggactctcca 240
 catcatccaa caccctcgag 260

<210> 1539

<211> 406

<212> DNA

<213> Homo sapiens

<400> 1539

gaattcgcgg ccgcgtcgac cctgaatc cagaatggtg tttctgaagt tcttctgcat 60
 gagtttcttc tgccacctgt gtcaaggcta ctctgatggc cccctctacc cagagatgtc 120
 caatgggact ctgcaccact acttcgtgcc cgatggggac tatgaggaga acgatgaccc 180
 cgagaagtgc cagctgctct tcagggtgag tgaccacagg cgctgctccc agggggaggg 240
 gagccaggtt ggcagcctgc tgagcctcac cctgcggggag gagttcaccg tgctgggccc 300
 ccaggtggag gatgctgggc gcgtgctgga gggcatcagc aaaagcatct cctacgacct 360
 agacggggaa gagagctatg gcaagtacct gcggcgggag ctcgag 406

<210> 1540

<211> 618

<212> DNA

<213> Homo sapiens

<400> 1540

gaattcgcgg ccgcgtcgac ggatgaggaa aaacaagggc aagtcactca agaccacaca 60
 gtgactgagt ggtgctgaaa ttcaagcctg ggtctgtgag tccagaactc cagcttctca 120
 ggtcacttcc tgatcgacc tggagctggg ctctgctgcc ctcaaggagg tgagcaccgg 180
 cctgctttga tccaagctga gattcccgtg gggccctctc tcacaggtgt ggttcctaca 240
 gtgcagggtt tgctacttcc aaaaactcag ccaccactga gtgagcattc cctgtgtgtc 300
 ctcaccggcc cctttcttgg ttttgggtgg caaagcttct tatctgtgtg tagcaagagc 360
 agcctgtttg ggctactgtc cccaagagag tggggctgca cagcaaagta gggcatccgg 420
 ttgtcctacc tcaggacagg tgaaaggcag acgggcttgt gagaaaggag gacactttgg 480
 ccaaattctga catctatctg gcccctcgt catttcgcca gtccctcggg gagtcagtgc 540
 ttaggtcttt cactgtgata tcacttcac gcctgcctgc cacatcccca gccccgctaa 600

tcacggaaga acctcgag

618

<210> 1541

<211> 437

<212> DNA

<213> Homo sapiens

<400> 1541

gaattcgcgg ccgcgtcgac gagacaccca tccctacgcc agcttgaqcc gtgcactgca 60
 gacacaatgc tgtatctctt ctcccagtc cctgatgagc cagcagtata gaccatatag 120
 tttcttcact aaattgactg cagatgagct gtggaagggc gctttagcag agactgggtgc 180
 tggagcaaaa aaaggaagag gcaaaagaac taaaaagaag aaaagaaagg atctgaacag 240
 gggtcagatc attggtgaag ggcgttatgg tttctatgg cccggactga atgtccctct 300
 tatgaaaaat ggagcagtgc agaccattgc ccaagaagc aaggaagagc aggagaaggt 360
 ggaggcagac atgatccagc agagagaaga gtgggaccga aagaagaaga tgaagggtta 420
 acgggagctt cctcgag 437

<210> 1542

<211> 544

<212> DNA

<213> Homo sapiens

<400> 1542

gaattcgcgg ccgcgtcgac ctggaatcat gagcaacaat ggagcagacc taacctttgg 60
 ttacatctcc tgtttttag ctatcctttt gtttggctca aattttgtgc cacttaaaaa 120
 atttgatact ggtgatggaa tgttctcca gtgggttctt tgtgtgcca tatggttggt 180
 tgccttggtt gtcaatctga tattacattg tccaaagttt tggccttttg caatgcttgg 240
 gggctgcatt tgggcaacag ggaacattgc tgtgtccca attatcaaaa ccattgggtt 300
 aggccttggg atcttaattct ggggatcatt taatgcctta actggctggg caagctcaag 360
 gtttggctgg tttggattgg atgcagaaga agtatcaaat ccgctgctaa attacattgg 420
 agctgggcta tcagtagtaa gtgctttcat atttttgttc atcaaaagtg aaataccaaa 480
 taacacgtgt tccatggata ccactccatt aataacagag catgtgatca acacaaccct 540
 cgag 544

<210> 1543

<211> 555

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (58)

<220>

<221> unsure

<222> (80)

<400> 1543

gaattcgcgg ccgcgtcgac agaaccacat ttttttgca cacacacaca cacatacnng 60
 tgtatagata tatatatatn gtttataggc aagaaaacca acttttgaaa gaatatatct 120
 ggtctaaaaa ttataaggaa aaaacattac ggagttctgt ttttttctga ttagttgtgc 180
 ggtctgaaag tagaagtggg tatggagaaa attgcagctg agattgcaca ggcagaggaa 240
 caggccccga aaaggcagga ggaaggagg aaggaggccg cagagcaagc tgagcgagc 300
 cagagcagca tcgttcctga ggaagaacaa gcagctaaca aaggcgagga gaagaaagac 360
 gacgagaaca ttccgatgga gacagaggag acacaccttg aagaaacaac agagagccaa 420
 cagaatggtg aagaaggcac gtctactcct gaggacaagg agagtgggca ggaggggggc 480
 gacagtatgg cagagggaagg aaccagtgat agtaacactg gctcggagag caacagtgca 540
 acagtggagc tcgag 555

<210> 1544

<211> 457
<212> DNA
<213> Homo sapiens

<400> 1544
gaattcggcc aaagagccta ggctactggt catagttaa aataaacatg ttcataattc 60
tcaagattaa agtttatttc aatttccttg agtgattat attttgctt ttgtttgtt 120
acattttgac tatctttctt gataaagatt cgtctccag ctttataatt tttttactga 180
ggaaactcat tttgatggga ggtgtttgt tttagttct tttccatcca cagatgtact 240
cctcatcaga tgttttggaa gttccctcag tctggctctt ggagtcatt tcagaagtag 300
atattttgct ggacacctaa ggttcttctc tcatagagat atttcacttc tgttccctaa 360
atcaagaagg ttgtctcca agtttttagt tacacagttg tctctgttc ttcattaac 420
gcctaaaccg tcgattgaat tctagacctg cctcgag 457

<210> 1545
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (171)

<400> 1545
gaattcgcgg ccgcgtcgac tcttgcaaaa atgtccttct cttgccagaa agaagggcat 60
ttaaaaagtc aggcagggga atagggagtt attgttaatg ggtaccaaatt ttcagtttgg 120
gaaggtgaaa gaattcttga aatgaatgtg atgattgcac aattaatgta nttaatacca 180
ctgaatgta tacttaaaag ttattaaaat ggtaaaattt atgtatattt caccacagtt 240
gaaaaaaaaa agccaagtaa tacaagtaga agtattgtt attaaacttt ttagtttatt 300
tttaaatgtt ttttacaac tttggggatt ttagagatgt gttccttgag tttgattttt 360
ttccctgtc atctctcaat ttagtttctt ttctttggcc aggaagagct cgag 414

<210> 1546
<211> 547
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (71)

<220>
<221> unsure
<222> (241)

<400> 1546
gaattcgcgg ccgcgtcgac ggcaagaagg aaagaccaag atcataaata ttaatggtga 60
aaacactgta ntaataaatt ttcatatgcc aaaaaaaaaa aaaaaaatt ggggggaaat 120
tttttgaaag ttaggagata aatacatttt ctgatatattg ataaaccatg ctattggtaa 180
gcttgacatt gtgctatggc aaaattctat gccgtaatga aacagctggt ccataacctt 240
naaaaataag aatgacacc aataataaca agtttaatca gtctaacttt tttttattgt 300
tgcttattgg agagaccatt tatgggaaca ctaaacacat agacgtgtct aagtttttct 360
ttagcttttt tctaatactg aagcatactt tacatagaga aaaccatacg aaattttaat 420
ttacagctca gtgaactgtt acaaggccaa tattaatgta tcgcccacc aaataaaaaa 480
aatgaacatg ggtaacactg taatcaaatt gcaattaaaa catcattccc tcccactcac 540
actcgag 547

<210> 1547
<211> 515
<212> DNA

<213> Homo sapiens

<400> 1547

```
gaattcgcgg cgcgctcgac tggctgcgag tacctccatg gtcccgggtg ctgtgacggc 60
ggcagtgggc cctgtccctgt ccataaacag cgattttctca gatttgcggg aaattaaaaa 120
gcaactgctg cttattgcgg gccttaccgg ggagcggggc ctactacaca gtagcaaatg 180
gtcggcggag ttggctttct ctctccctgc attgcctctg gccgagctgc aaccgcctcc 240
gcctattaca gaggaagatg cccaggatat ggatgcctat accctggcca aggcctactt 300
tgacgtttaa gagtatgac gggcagcaca ttctctgcat ggctgcaata gcaagaaagc 360
ctattttctg tatatgtatt ccagatatct gtctggagaa aaaaagaagg acgatgaaac 420
agttgatagc ttaggcccc tggaaaaagg acaagtgaag aatgaggcgc ttagagaatt 480
gagagtggag ctcagcaaaa aacaccaagc tcgag 515
```

<210> 1548

<211> 643

<212> DNA

<213> Homo sapiens

<400> 1548

```
gaattcgcgg cgcgctcgac ggtgatccac ccgccttggc ctoccaaagt gctgggatta 60
cagggtgtgag ccaccatgcc cggcttgttt ttataagtt agcaaatatg atcttttctc 120
tgggtgatatg ccaacatagt tgtaatgaat aaaatgttac agaagacata acatatgaaa 180
agttattagc taactatttt atttcaatgt gatggactaa accacacact gcatttaggc 240
ataactttga gctgatgact tcctgtactg tccccacca attgtcacc ctcagagggc 300
tgccacacta cctcttgtt ggcacaggaa ttggttggtc tgggctttta aaatcagatt 360
catctttctg aattccttcc tcagtttctt tcccatctgc cttagctctg tgccccatcc 420
gggcattcca ggccaacccc caagtgtctg gccacggaag tgaatatgtt tgggatttaa 480
atcatcagtt gcctttgaaa gtcacgctgc aatagacaga taacttgaa tgcaggtgag 540
gcagagaatt cactgccatc aagtcgcagt gtaaataaga tcacagaggt gatgataacc 600
tttcacgggt tgatgatagg ttaatgaaaa aagaactctc gag 643
```

<210> 1549

<211> 588

<212> DNA

<213> Homo sapiens

<400> 1549

```
gaattcgcgg cgcgctcgac gacctgcctc gegtcccttg cttccaagca cccttccgaa 60
gagtgggccaa aaacaggcca gcatttttaa tactttggga atgggttggc caacatttga 120
aaaagctgca gcttagcaga tatgtccaca agctacatct tctaaagcct gacattgggt 180
aggaattaag gtcgggtcca ggtctcagta ttaataatc ttctcttta tcacctgaat 240
tttgctgtaa agcagtgctg accaatagaa acataatatg aattatatat tgatttttca 300
acttccagg caccactttt aaaaagtaaa aagaaactgg gagaaataat tttatttaac 360
tcaatgtgat catctcaaat atgatctcag atatgatcat tcaacatgc agtcaatgtt 420
ctaaattatt tacagatac ttaccttct ttttttcaaa atcttttaaa tccagcatat 480
agtttacact tacagcatat cccagctgag accatccaca tctcaggggc tcaggaaata 540
cacaaggtaa gctgaacagc tcgcgtctca aggattagct gcctcgag 588
```

<210> 1550

<211> 744

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (238)

<400> 1550

```
gaattcgcgg cgcgctcgac ggcattctat ttttcagggt agctatttcc tcttatttat 60
ggattattac aggtcttctt aaaagtattc aaatgatagt agaaaggcag atctgggcag 120
```

```

ggcacggtgg ctcattgcctg taatcccaac agtagattgg gaggttgagg tgagaggatc 180
gcttgaggcc aggagttcga gaccagcctc ggcaacatgg tgagacgctg tctctacnaa 240
gaaattttaa agattggctg ggtatgctgg tatgtgcctg tggctctcagc tactcgggag 300
gctgagagggt gggagtagtg ctgagcccg gaggtcaggg ctgcagtggg ccatgatcgc 360
gccactgcac tcccagccag aatcacatga gagcctgtct caagcaaaaca aacaaaaaat 420
gattcttgcc actgagctta agaaaagaaa aagggaaaaa aaggcagatc tgaattccct 480
ctagatccta ccttttcaag ggagaaaaa gaggacagag ccaagggcag aggaaaagct 540
tagggagaga aaatagcaaa aatgaaaaat ttacacttat ttcaaaagat agactttctg 600
ttttgaatct ttggaacatc tgttttgatc agactgaaaa tagttggacc acatgttttg 660
tgtttcaact gaacattcca gagagaagat tataattctg aaggtgtctg ttcataaaga 720
ctggtatttc ccatatctct cgag 744

```

<210> 1551

<211> 529

<212> DNA

<213> Homo sapiens

<400> 1551

```

gaattcgcgg ccgcgtcgac ctggaatgca aacaacagaa aattatctta ctgagaaggg 60
aaatgaaaga aacgtgaaat ttccccaga acaccctgta gagaatgatg ttacacaaac 120
tgtaagttct ttctcattgc cagcctcttc aagatcaaaa aaattgtgtg atgttacaac 180
aggacttaaa atacacgtgt ccattccaaa tagaattccc aaaattgtaa aagaaggtga 240
agatgattac tacacagatg gagaggaaa cagtgtatgat gggaagaaat accatgtgaa 300
gtccaagtcc gctaaaccat ctactaacgt taaaaaaagc ataaggaaaa agtattgcaa 360
agttagctcc tcttccctct cctctttatc ttctctatct tcagggttcag gtacagattg 420
tttagatgca gggctctgata gccatctatc tgattcgtct ccgtcatcta agtcatctaa 480
gaaacatgta tctggtataa ccctcctgtc accaaaaacac aatctcgag 529

```

<210> 1552

<211> 438

<212> DNA

<213> Homo sapiens

<400> 1552

```

gaattcgcgg ccgcgtcgac atgaaatgca gaatacacat ttttggatcc aggaagtgtt 60
acttacgtgc ctgtaacaat gtaatttttag gccagggtgca gtggctcatg cctacgggtc 120
tagcactttg gaaggttgag ggaggatgat cgcttaagtt cagttgttga aatgcagaat 180
acacattttt ggtaccagga agtggtactt acgtgcctgt aacaatgtaa ttttaggcca 240
gggtcagtggt ctcattgcct cagtcctagc actttggaag gttgagggag gatgatcgct 300
taagttcagt tgttgaaatg cagaatacac atttttggat ccaggaagtg ttacttacgt 360
gcctgtaaca atgtaatttt aggccagggt cagtggctca tgcctacggg cctagcactt 420
tggaaggttg aactcgag 438

```

<210> 1553

<211> 710

<212> DNA

<213> Homo sapiens

<400> 1553

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gaattcgcgg ccgcgtcgac atcacattgc agttaatata gaaatactgt ttatacttat 60
tcaaaattat agtaacacat cactgaattt attgaatgca acagagaagc acatatatat 120
atcgcgttta ctttttatga ctgtttttaa agaattagtt ttcttgtaaa tcctgtgtat 180
atttaagaac agtattcaga gaagagggtta agaagcgtca tcctatagta aaagagatgt 240
aaggcataga gaaagtgttg aacttctttt gtaacagcga taatcccaag cttgtctaac 300
ctctcagtgga gtttagaatg agtctctagg ttgtggatat taaggaaaaa ttgtttcata 360
taataaactg cttgatttta acttttaggc aaatttgttg actactgaga cagcgggttg 420
aaggatcag atccactatg gaaactttta ggaaataggt tcccctagtg aaacttggtta 480
aactaaataa agcccatgag aatctaacat gcctttcaga aaatattgtg tgaaagctat 540
ttgacacctt ttgatgcaca gtgtaggatt catattcttt tgactaatac tgggtgttga 600
ataccatttg ctctctgccg tgcacagaaa tttggagtag ggagtgaana caaagtattt 660

```

gctatgtttt ggtctggagg gacagaaaga aaaacaagct agctgccaaa

710

<210> 1554

<211> 677

<212> DNA

<213> Homo sapiens

<400> 1554

gaattcgcgg ccgcgctcgac gattttacta tctttaaagc aatgatggtc cagaaaaaca 60
 ttgaaatgca gctgcaagcc attcgaataa ttcaagagag aaatgggtgta ttacctgact 120
 gcttaaccga tggctctgat gtggtcagtg accttgaaca cgaagagatg aaaatcctga 180
 gggaagttct tagaaaatca aaagaggaat atgaccagga agaagaaagg aagaggaaaa 240
 aacagttatc agaggctaaa acagaagagc ccacagtgc ttccagtga gctgcaataa 300
 tgaataattc ccaaggggat ggtgaacatt ttgcacaccc accctcagaa gttaaaatgc 360
 attttgctaa tcagtcataa gaacctttgg gaagaaaagt ggaaaggtct gaaacttcct 420
 ccctcccaca aaaagacctg aagattcctg gcttagagca tgcgagcatt gaaggacca 480
 tagcaaaactt atcagtaactt ggaacagaag aacttcggca acgagaacac tatctcaagc 540
 agaagagaga taagttgatg tccatgagaa aggatagag gactaaacag atacaaaata 600
 tggagcagaa aggaaaaccc actggggagg tagaggaaat gacagagaaa ccagaaatga 660
 cagcagagga actcgag 677

<210> 1555

<211> 536

<212> DNA

<213> Homo sapiens

<400> 1555

gaattcgcgg ccgcgctcgac attgggcatt tccagaatac cattcgagaa atgttttctc 60
 agttcgcaga gtttgatgat gaactggata gcatggctcc agtggggaga gatgcagaaa 120
 cattgcaaaa gcaaaaggaa actataaaag cctttctaaa gaaactagaa gccctcatag 180
 caagcaatga caatgccaat aaaacctgca agatgatgtt agccacagaa gaaacctctc 240
 ctgaccttgt ttggaatcaaa agggacttgg aggccttaag caaacaatgc aacaagttac 300
 tggaccgagc ccaagccaga gaagagcagg ttgaaggagc aattaagcgc cttgaagaat 360
 ttacagcaa attgaaagaa ttttctattc tgcctcagaa agccgaagaa catgaagagt 420
 cacaaggtcc tgttggtatg gaaacggaga caattaatca gcagcttaac atgttcaagg 480
 tattccagaa agaagagatt gaaccttgc aaggtaaaaca gcaagatata ctcgag 536

<210> 1556

<211> 575

<212> DNA

<213> Homo sapiens

<400> 1556

gaattcggcc aaagaggcct actattatc tcatggctcag tagcaacttt tggttcaaat 60
 atccccaaac atgctcaaaa gtagaacatt ttgtttcaat attaggaaag tgctttgaat 120
 ccccttggac gacaaaagcg ttgtctgaga cagcatgcga agactcagag gaaaacaagc 180
 agagaataac aggtgccag actctaccaa agcatgttcc taccagcagt gatgaaggga 240
 gccccagtgc cagtacacca atgatcaata aaactggctt taaattttca gctgagaagc 300
 ctgtgattga agttcccagc atgacaatcc tggataaaaa ggatggagag caggccaaag 360
 ccctgtttga gaaagtgagg aagttccgtg cccatgtgga agatagtgac ttgatctata 420
 aactctatgt ggtccaaaca gttatcaaaa cagccaagtt catttttatt ctctgctata 480
 cagcgaactt tgtcaacgca atcagctttg aacacgtctg caagcccaaa gttgagcatt 540
 tgattgggta tgaggatatt gagtgcaccc tcgag 575

<210> 1557

<211> 699

<212> DNA

<213> Homo sapiens

<220>

<221> unsure
<222> (7)

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (59)

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (105)

<400> 1557
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aatcatgcta ttaggattaa aaaacttcnc aagggcacgg tttcntttca tttccattca 120
gatcaccgtt ttctgggcac ggtaaaaaaa gaagccactt ttccaatcc taaaaccact 180
agcccaata aaggcaaaga gaaggaggct gaggatggca ttattgctta tgatgactgt 240
ggggtgaac tgactattgc ttttcaagcc aaggatgtgg aaggatctac ttctcctcaa 300
ataggagata aggttgaatt tagtattagt gacaaacaga ggctggaca gcaggttgca 360
acttgtgtgc gacttttagg tcgtaattct aactccaaga ggctcttggg ttatgtggca 420
actctgaagg ataattttgg atttattgaa acagccaatc atgataagga aatctttttc 480
cattacagtg agttctctgg tgatgttgat agcctggaac tgggggacat ggtcgagtat 540
agcttgtcca aaggcaaagg caacaaagtc agtgcagaaa aagtgaacaa aacacactca 600
gtgaatggca ttactgagga agctgatccc accatttact ctggcaaagt aattcgcccc 660
ctgaggagtg ttgatccaac acagactgag tacctcgag 699

<210> 1558
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (632)

<400> 1558
gaattcgagg ccggtcgac ccgttaaaac acagcctata tcaatgaggg cctgggagaa 60
aactgggggtg ggggaggact gtgcctctct tgaccttcat ttacaaaaaa taagttggct 120
cctagaccgg tgttgagcc aactgcccg ggacagccct gaagcagcca cgtccccacc 180
tttcaggagt cggccaagag cagggtggct gcagaaggcc ctggctgatg gagataacat 240
ttgacaaaca ggtgagcgc ctccccctc cgccccctt ttagaaaccc ggcgttcttt 300
atggcctttgc tcaggtagat cattcattgc cataaatttt cttatctcca gtgcttttcc 360
aattatggat aacaacagaa aagcagtcac tggtttctaa aaggatcatca agatataaag 420
cccgtttggg aaggggaatga cttacgcagt ggccttgat aaatctggag aagttttatg 480
cacaagtcgg acaagaaatg taagttagat tcataaaata tataacgatt catggtgtct 540
cggctgatga aaattgtctt tccttttgcg gtttgtgtgg gaattatttg ttctttccag 600
gtgttctaca tacggctcgg gagccagcaa gngcttatga agccccctga g 651

<210> 1559

<211> 560
<212> DNA
<213> Homo sapiens

<400> 1559
gaattcgcgg cgcgctcgac cgagtggctg ggactgcagg cgccccccac cgcgcccagc 60
tagttttttt tgtactttta gtagagacgg ggtttcaccg tggctctgat ctcttgacct 120
cgtggctcgc cgcgctcggc ctcccaaagt gccaatcttg actctactta aacatcacct 180
gtatcagggg gctcattatt ccttgaggtc ttacatttct ttcagcacat tttgttccaa 240
gctacacatg actttaaaac agagccagcc tttggggcat atgttctctt tgggtgccaca 300
caaaacctgt agtacatgat acagtgttgc tccccccctc cttttccttc catatatatt 360
tgttttgttt tgggcattgc attacttttt tgaattttta agaattctta aaattagtct 420
gaaggatggt ctgaggggca gacattagaa tttgtgagtt tttttgttgc tggttgtact 480
ttcctattta gaagacagac cgttctgaca gttgttgtgt agcttcacgc cttccccagt 540
aactaaccca tgaactcgag 560

<210> 1560
<211> 625
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (116)

<400> 1560
gaattcgcgg cgcgctcgac ttgagatgag actctgtcgc caggctggag tgcagttgca 60
cgatctcatc tcaactgcaac ctccaccgcc cgcgttcaag cgattctcct gcctcngcag 120
cctcccgcca ccattgctcag ctaatttttg tatttttagt agagacgggg tttcaccatg 180
ttggccagga tggctcgtat ctcttgacct catgatccac cgcgctcggc ctcccagagt 240
gctgagatta caggcgtgag ccaccgctcc tagcctataa tcatatttgt aataattgta 300
ctttgtgtag cactttacaa tggcgaagag ttttcagaaa taaccatatt taatcctcac 360
acagctatag agtaggtggc atatgacctg gattttctat caatttcagt ttcagatttt 420
ttgtcctgtc atccctttga gtgtccttcc agtttttgat ttgggaaata atgctacat 480
accggtggat ggggcaactt tcccttctt tccatttgga cttgagcaga ctgagactca 540
agacttgatt tgatttatac tcactatggt agaagataag gaaccaagtc cagaacacac 600
attttacaaa ctccgagctc tcgag 625

<210> 1561
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1561
gaattcgcgg cgcgctcgac tctagttgta ccaaagaagt ggtaatatag acttttgtgg 60
atccttttaga gcacctgata tcacattaaa taatatgata cctgaatatg tatttcagtt 120
gtttctccca ctagaatacc agggtaggaa ttttcttttg tttactgttg tatctgtagt 180
gtccagagca gtgcctagca tgcagtgaat gcttattaaa tattttttga atgaatgaat 240
tataagacac ttggaagctg aggggaattta ttataaacag agtttaatcc ctgaaaggag 300
tcctgcacag agattgtcaa tcaaatcata gttttgaagt ctgtgttcta tgtctaagat 360
tgtattgagc ccttttaaat agaaactgga agataaacgt ggtccctact ctgattctaa 420
gagcttttat actaaaagga aagagaatgt catgagcatt tatgtatata gcaaggcatt 480
accatcaaca gccattaaaa ggggaggttt gtcaagggtg tcgtgagtca gttgagtatt 540
tggcctcttc acacgtgtga gaggtgggag gctggtgggg agctcacata ggcgtaacag 600
cccatgttca aatccagctt cactgcttag tgtttgcatt acattggcaa gggttgactg 660
cctcgag 667

<210> 1562
<211> 676
<212> DNA

<213> Homo sapiens

<400> 1562

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gaattcgcg cgcgctcgac gtccctgggccc tgcacgtaaa gctagccccc tgccccacgg 60
aaatggcaag cagtgtctcc ctccaggggt tctacatctg tgctccatct caaaatgcat 120
aaaagcctga gtcattcaga tgggagagac agtgtttcta ctctctctta gttgggggtc 180
ctccagaagg agaccctgag agaggacttg aggttatgta gtttatctga gtgaagatcc 240
cggaagtagg gagagaagga agctgacggg gaaggcgtgc attatcaagt aagttaccgt 300
catgtgcaca actggagctg aatcccaactg gggaaacccc agagacagag ctgacacccc 360
agagttcacc cagcaaggcg gggagacagc tgggggtattt attcaccaag tctatcactt 420
atgaaaggct gtttctggaa acaatttctg actggccctg cacacacctg agcatacttc 480
ctaagccggg gatgtccctg agctgagaca ggcgttcgtg acaagcagac ttcgagtggg 540
aggcaggcat cagaaccacc ctgtgagctg gttcagacaa agattgcagg cccttcacc 600
cccttgggcc cgccaagttc ctgactccct aggtctggag tggggcccg gaatttgcat 660
ttcaaaaaat ctcgag 676

```

<210> 1563

<211> 573

<212> DNA

<213> Homo sapiens

<400> 1563

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gaattcgcg cgcgctcgac atgcctgat ctttttccag aagagattca cttaatecta 60
tgacagtga gttcagacct gactggagta ctacaaatgt agtttgatct gtgcctggta 120
gataatttaa attgaccgac tccaaggtag ttatatgtta agtcagcatt tgtcttctt 180
tttgttcaca aataaaagca agagcctttt tactttccaa atgattttta aatttagatt 240
gaatttgtcc aaaggaagaa aaatatattt aatttttttt tctttttttg agacggggtc 300
tactctgtt gccagggtg gagtgacgtg gcatgatcat ggcttactgc agtcttgaac 360
tcttggaact aagcgattgc cccacctcag gcttgtcagt agctgggact acaggtgtgt 420
gtcaccacgc ctgactaact ttttaaaatt tttgtaaaga tggcatctct gttgcccatt 480
ctggtcctga actcctgggc tcaagcagtc ctctgcgtc agcctccaac atgctaggtg 540
actataggtg tgaaccattg caccagactc gag 573

```

<210> 1564

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (57)

<400> 1564

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gaattcgcg cgcgctcgac ntgtcnagga tgggtggtg gtcattgccc tgcaacnaca 60
ggaatcgag gaaggtagc agcaaagcag gctctgagat actccgtagg aaaagttcca 120
ggttggcgt actggcgatc atctctcca cagaggtctt gtgcaaggca ggacccatga 180
caggcaccag gaaccatta tggatataat caaccaactg ctcttgacc agggggtgag 240
ccacctgaat tactgcattg cagaactcca gggaaactcat gaagagtga agggctggca 300
ctcccagcca gtcttcccg cgcagacagt gccaatcacc ccttgggaacc tcaatcttcc 360
gaggcagtga tgagtacagg gcactgagcc ctgtggccag caccgggcag aagtaagagt 420
gatccgcgat gttagggccc acagtggggc tcccagctga caaagccatg agaagaagta 480
gggcatcacg ggcctgctgg cccagggtgc cctctcgatg cacaaaaggg acaaggcgag 540

```

aaaagagaag aagacgggga ggggctccag gctcaggagg tggctgcagg aagaactcga 600
g 601

<210> 1565
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1565
gaattcgagg ccgcgctcgac ggggatttta ttttaagttt gttggtttgt agttttctgt 60
atgggtgattt tattttttta actgaaaatt taagaattaa ctccagataa taataacacc 120
ctcatttctt ataaactaac tacttgaatt taactttttg ccatgcccc ccaccgccat 180
caggcatcac tcgag 195

<210> 1566
<211> 293
<212> DNA
<213> Homo sapiens

<400> 1566
gaattcgagg ccgcgctcgac cgagattact ggcaagtctt ttagattttt tacagccttt 60
ctcataacag cctctttctc ttttgctcct gttggttaacc cagtatgagc tattatgagt 120
tttattcttt gcctattgaa atagcttcca aaccaatgtc tgattataat ttgtaccttc 180
tctgttccac cctattttct agattgttcc ttctaagtc acatttaac cattgtcttc 240
aagtctctct tcttttacag aatcaagtcc agactttcgg gacttcactc gag 293

<210> 1567
<211> 715
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (145)

<220>
<221> unsure
<222> (226) .. (227)

<400> 1567
gaattcgagg ccgcgctcgac ccaagacact caatggaata tgtcacactc cttaataggg 60
acctgtgact ccttaataag gacctgtgac atgccagca tcaagggata agaccgtaaa 120
ttcacatata tgccatctgt cctcnagtgt tatctacata ggaaataaaa tggaattgat 180
gtaaagtctc atttctgacc gctgacattt attaaacttt ggatcnaga taatgtgatt 240
cttatgattg atttctcaaa ctagcttttc cctcccaagt ccaggaccca ttaatttcct 300
gagccaatca gaaatatatt tttcaataat gctaaaatta gctacaattc tgctgacct 360
actattaaag aatctggatg ctggactcat tgacaagctt tccagaagca attttataac 420
agatttcatt ttaacaaaat actgatccaa ttttcattat tcttgagaaa tgctagcttt 480
gccttaatga gtatttgctt taaatttcta agaatttata tcataactag agaccctaat 540
atctttcaca gaattttgtt ccataaatgt ttttcttaat tattaagaag tgttacctta 600
ttaaaatgac caccattcta aaccattttt cagtggctct gatacgaagt ttacagtctc 660
ataccaacta tctaaaacct aattgcaaat tgaccacaga cccctaacc tcgag 715

<210> 1568
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (21)

<220>

<221> unsure

<222> (57)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (116)

<220>

<221> unsure

<222> (185)

<220>

<221> unsure

<222> (188)

<220>

<221> unsure

<222> (278)

<220>

<221> unsure

<222> (281)

<220>

<221> unsure

<222> (312)

<220>

<221> unsure

<222> (327)

<220>

<221> unsure

<222> (434)

<220>

<221> unsure

<222> (438)

<220>

<221> unsure

<222> (462)

<400> 1568

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aggcngtatc ctgccctgga cacagagggtg gccagtggtc atcaagggct tgagantgga 120
gtgacagcct caggcgatgt ctgtctcgaa gctctcaggt tagaagaaaa ggaagtacgg 180
catcntanga ttttagaggc gaaatcgata ctgacttccc ccacggaaga gggcggggtg 240
ctgacactgc ctctgtgga tgggctgccg gggcgtcttc natgcccccc tggggctgaa 300
agtggacctc anacaaagt ctgttcngag atttctttga ttgtgtctcc aaggcgaata 360
tcagtccagc tcgacagcca tcagcccaca cagagcatct cacagcctcc accacctcca 420
tcccttctgt ggtntgcnng gcaaggacag cctgggtcac anccgccccca ttctatttct 480
accgagtttc aaaccagcca cgaacactgt gtttcctctg cctttaaaaa cagctgaaac 540

```


atcccatctc ctcgag

556

<210> 1569

<211> 673

<212> DNA

<213> Homo sapiens

<400> 1569

```

gaattcgcgg ccgcgtcgac gcatgagtct ggccaatgta cccctggag agcagcggtc 60
tcgcttcctg gctgtggggc ttgtggacaa cactgtcaga atcatctccc tggatccctc 120
agactgtttg caacctctaa gcatgcaggc tctcccagcc cagcctgagt ccttgtgtat 180
cgtggaaatg ggtgggactg agaagcagga tgagctgggt gagaggggct cgattggctt 240
cctatacctg aatattgggc tacagaacgg tgtgctgctg aggactgtct tggaccctgt 300
cactggggat ttgtctgata ctgcactcg gtacctgggg tcccgctctg tgaagctctt 360
ccgagtcgga atgcaaggcc aggaggcagt attggccatg tcaagccgct catggttgag 420
ctattcttac caatctcgct tccatctcac cccactgtct tacgagacac tggaaattgc 480
atcgggtttt gcctcggaac agtgtccga gggcattgtg gccatctcca ccaacacct 540
acggattttg gcattagaga agctcgtgct tgtcttcaat caagtagcct tccactgca 600
gtacacaccc aggaaatttg tcatccaccc tgagagtaac aacctatta tcattgaaac 660
ggaccctctc gag 673

```

<210> 1570

<211> 459

<212> DNA

<213> Homo sapiens

<400> 1570

```

gaattcggcc aaagaggcct acttgcatth attcagtaag actaattaac aaaagtgtg 60
agtaaacacc actagagggt aaaattaaag gccagggtcc caggcctaaa gcaaacacca 120
tttgtgggta ataaactgcy gacccccgag taggcggcag taaagtaccc tcagcaggac 180
aaaagttagt ctttagccca tataactaaa caggtagta agataaactt cctacattcc 240
tttccacttg caccctaate ttctggcct cctgcaaaga gacctggct gccttcagcc 300
aagcaatcaa gctatgcaaa ctctcaggcc ttttaggaca gcttttgact gttactcttt 360
taaattttt tcccaccagc ctgattgaac cccaacaccc agctctgctg aggggtacag 420
aattggccag acatggtgcy acacacctct tagctcgag 459

```

<210> 1571

<211> 551

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (340)

<400> 1571

```

gaattcgcgg ccgcgtcgac aggtgaggga ggatgtgact ccagggggcc cagtactccg 60
agtcacagcc tcggatcgag acaaggggag caatgccgtg gtgcactata gcatcatgag 120
tggcaatgct cggggacagt tttatctgga tgcccagact ggagctctgg atgtggtgag 180
ccctcttgac tatgagacga ccaaggagta caccctacgg gtgcgagcac aggatggtgg 240
ccgtccccca ctctctaatg tctctggctt ggtgacagta caggctcctg atatcaacga 300
caatgcccc atctttgtca gacccccctt ccaggctacn gtcttgaga gcgtccccct 360
aggctacctg gttctccatg tccaggctat cgacgtgat gctggtgaca atgcccgcct 420
ggaaatccgc cttgctgggg tgggacatga cttccccctc accatcaaca atggcacagg 480
ctggatctct gtggctgctg aactggaccg ggaggaagtt gatttctaca gctttgggg 540
agaagctcga g 551

```

<210> 1572

<211> 677

<212> DNA

<213> Homo sapiens

<400> 1572

```

gaattcgcg cgcgctcgac gcgactgagt cgggtggcgaa gacgggaacg cgacgatggc 60
ggagactctg cccgggtcgg gcgactcggg ccctggcacg gcttctctcg gcccgggct 120
tgcggagact gggacgaggg ggctcagcga gctgcgggtg atcgatctgc gggcgagct 180
gaagaagcgg aacctggaca cgggcggcaa caagagcgtc ctgatggagc ggctcaagaa 240
ggcgggttaaa gaagaggggg aagatcctga tgaaattggc atcgagttag aagccaccag 300
caagaagtca gccaaagagat gagttaaaag actgaagatg gaggaggaag gcacagaaga 360
taatggcctg gaagacgatt ccagagacgg gcaggaggac atggaagcaa gtctggagaa 420
cctgcagaat atgggcatga tggacatgag tgtgctagac gaaactgaag tggcgaatag 480
cagtgtctca gattttgggg aggatggcac ggacggcctt ctcgattcct tttgtgatag 540
taaagaatac gtggctgcac agctgagaca gctcccggtt cagcccccag agcatgctgt 600
aggtggatgg ggaaggatgt aagaacactt tggaaacttc atcgttgaac ttcaaagtaa 660
ctccggacat tctcgag 677

```

<210> 1573

<211> 757

<212> DNA

<213> Homo sapiens

<400> 1573

```

gaattcgccc aaagaggcct aggtgtaatg aaatcatggt cacagtttta aaggaagagt 60
ttccagtatc aaaaccaggt ttgaatgtct taccacattc tcacagacac caccagtgtc 120
atcagcacag tatgaacctc acagcccgta tctcgggtgt gtcttaattc acatctatga 180
tcccaaacct gtgtccaca ggcacatgcc cacacatggg tccataacaa ttatcccatc 240
tctctgggg ctgagtctga gtccataaat tccctcaac acagaagaca cggctgtcac 300
cagccctccc tctccaggtc agtggggact cagcgcaggt cgggtctcatg gtgaccagac 360
ggagcgcact gtgtacctg ccgcgtggtc tgcccattag aaacttcgta gagtgcctgt 420
gagccatgag gaagcctctg gggaaagcag tgccctggaa aatgcctcc actttccacc 480
tggacaccag gcactgcggg gacacggcca gctcctgtgg cccaagaaca accaaggagg 540
ctggcacacg agggaggagg gcatcttaag gccgaattgg ggtccaaaga ggcaaaactc 600
acagcggatg gccgagaagc tcccccaagc acaggcacca tcaggcagcc tcaaggccca 660
gagcggctct tcacgtgagc agaggggacc cccgcaagga cagggcagag gggtcgccct 720
cacctggaga gtcaacgact cccgcccacg gctcgag 757

```

<210> 1574

<211> 644

<212> DNA

<213> Homo sapiens

<400> 1574

```

gaattcgccc aaagaggcct acgccccggt cacagtgaat atgtagacgg ggtcgttgtc 60
cgtacgactg tgcgccaggg ctccggggagg ggcgccctcc gcgtgagcgc cccctggga 120
atattgaaca taatcacctc tcattccaga ctatgttagg tcttaatggt gggaggacgc 180
ccgattgtct ggcgcgtttc accccgagga ggaaggacac tgggtcatga cgccatcaga 240
gggcgccaga gcagggaccg gacgcgagtt ggagatgttg gactcgtgtg tggccttggg 300
cggcctgtgt ctgcttcggg attcctgtga gtgggagggg cgcagtctct tgaaggcgt 360
tgtcaagaaa tctgactgt gtggggagca agtgcatatc ctgggctgtg aagtgagcga 420
ggaagagttt cgtgaaggtt ttgactctga tatcaacaat cggctggttt accatgactt 480
cttcagagac cctctcaact ggtcaaaaac tgaggaggcc tttcctgggg ggcgcgtggg 540
agccttgaga gccatgtgca agaggacaga tccctgttct gtcaccattg ctctcgattc 600
actcagctgg ctgtacttc gccttcctg caccaatact cgag 644

```

<210> 1575

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1575

```

gaattcggcc aaagaggcct agaggggcta agggtagagt ttaattttaa tttccttctt 60
acaatcagag tcctcgccaa ggcaactgct tagttttcgt actgcacttg ggatcttaca 120
cattcattcc acaaatacat attttatggc tactatgcat tgggcactat tccagggtgct 180
agag                                              184

```

<210> 1576

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1576

```

gaattcggcc aaagaggcct acgtcgattg aattccagaa gccctgttca tggttgggga 60
tattttctcg actgcatgga atcagaaaga agcaaaagga tgggaaatgc ctgcattccc 120
ctgaaaagaa ttgcttattt cctatgtctc ttatctgctc ttttgctgac tgagggggaag 180
aaaccagcga agccaaaatg ccctgccgtg tgtacttgta ccaaagataa tgctttatgt 240
gagaatgcc aatccattcc acgcaccgat ctcgag                                              276

```

<210> 1577

<211> 823

<212> DNA

<213> Homo sapiens

<400> 1577

```

gaattcggcc aaagaggcct atgttatttg tctttttgat ttcgttgaca tttttatcga 60
ttgtgaaaaa gcatggtggt attcactgtg cacttgtaat aaaaatgtcg gtttcatttt 120
aaaatgccct tgacgttgca gtaaaaatta ttaattttat taaaatttta acccatgaat 180
acacatcttt tattctgaga tgaatgatac atatgcatag agtacttctg tggcatgcc 240
aagtaccatg cttgtttcag ggagatgtga agttcagtta caagctgaac tacttgcttg 300
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actgcgttat ttgacagtgg ttttttgaaa agtgaatgag aaacatctcc catagtggagc 420
ttgatagctt ccagatgtgt agacttttct catggagtct gatattagag agtgtaattt 480
tccaatactg gataatgaaa tgtgtcaaca tttggaatat ttgtatacag tgggtgaacca 540
atattttcca aatgatcaat gcatgatgtt tcaccagtat gcatgggtaa agttctttaa 600
aagtataaaa tatatcagtt gatcttaatg taacagagtt tgagaagttc attggtaaga 660
tttcagatac cacattgtaa cctttaagaa attaccactt gtcaagtttt tgaatatgca 720
agcattttta aatattcttt ttccaactac atatttgtgt tgggtcagat gttttcacc 780
acttctgcta aaacaacatt ttataacacg tcgcggaactc gag                                              823

```

<210> 1578

<211> 721

<212> DNA

<213> Homo sapiens

<400> 1578

```

gaattcggca aagaggccta tccaccatca cgatcgtggc cgaggaggta tcaggcaca 60
acgactatgt gcaactcacc ttcagagcct acaagctgga caacaaggat ctgttcagca 120
agtctgaccc tttcatggaa atctataaga ccaacgagga ccaaagtgat cagctggtct 180
ggagaactga ggtgggtgag aacaacctga accccagctg ggagccgttc gcctgtctcc 240
tgcatccctt atgcagctgt gatgttcacc gacctctcaa gtctctggtg tatgactatg 300
actccagtg gaaacatgac ttcacggtcg agttcaccag cactttccag gagatgcagg 360
aagggacggc aaaccctggg caggagatgc agtgggactg tatcaacccc aagtatcggg 420
acaagaagaa gaattacaag agctcaggga cggtagtgtc ggcccagtgc acggtggaga 480
aggtgcacac ctctctggat tacatcatgg gtggctgcca gatcagcttc acggtggcca 540
ttgacttcac tgccctcaat ggggacccga ggagcagcca gtccctgcac tgccctcagtc 600
cccgacagcc caaccactac ctgcaggccc tgcgtgcagt gggaggcatc tgccaggact 660
atgacagtga taagcgggtc ccagcttttg gctttggggc tcgaatcccc ccaactcga 720
g                                              721

```

<210> 1579

<211> 549

<212> DNA

<213> Homo sapiens

<400> 1579

```

gaattcggcc aaagaggcct accagatggt aactcagatc cacagaaaaa aataaaaagc 60
accagaaatg gcaaatatgt ggacaaatgt aaaatctctc tattttctct tcttatttat 120
ttaaaataca tagaactatt tagaaaaagt ataacactta tgtattggac ttatatattg 180
attatatata catggcaata gctcagaagg tggggtgggg tgggggaatt tattggagtt 240
atattgctgc aagtttacca tattttacct gaaacaactt agattattac ccctaagtgg 300
actgcaatga gatttatagt gtaatccac taaaatataa tgtgagagga ttgcctgagg 360
ccaggagttt gagactagcc taggcaacat agtgagaacc tgtcgctaca aataataata 420
ataataatca aagctctcac ctcaataacc taggaaaaaa atagcaaaat aaatccaaag 480
caagcagaag gaaggaaata ataaagataa gaacagaaat ccatgaaatt agaaaccgaa 540
aaactcgag                                     549

```

<210> 1580

<211> 646

<212> DNA

<213> Homo sapiens

<400> 1580

```

gaattcggcc aaagaggcct aatactctga aattaccctt tatctaataa tagcattaag 60
cacagtgtct tttatatattc ttttgacaat catcattttg agcatcatca agtgctaccg 120
ctacactgcg tatggcactg catgctgtgg aggtctctgt ggagtaaggg aaaggctccc 180
tgcagaaactg tacaacaag ccaacaacaa tattgatgcc aggataccgc atggcctcaa 240
agtgacgctc cacttcattg aagttcgagg gaatggctcc ctcaccaaga cctactgcta 300
caaggcctgt ctgacagcag gctcaggagg tgacactttc atgttttaca atacaggggc 360
ccagacagga ccagggcctt cgggagccca agcagcagtg actgacagca ggaatctcac 420
aggccaaagt ggtcagaatg ctgggaacct gattattctc aaaaatgagg ctgtttctca 480
aaatgagcca cgacagccca accctgactg gcgttactct gcctccctga gagcaggcat 540
gcacagctct gtgcacctag aggaggctgg cattctacgg gctgggtccag gagggcctga 600
tcagcagtggt ccaacagtat ccagtgaac accagaacgc ctcgag                                     646

```

<210> 1581

<211> 516

<212> DNA

<213> Homo sapiens

<400> 1581

```

gaattcggcc aaagaggcct aagagaactc cagatttgcc tgaagaagag tatgtgaagg 60
aagaaatcca ggagaatgaa gaagcagtc aaaaagatgct tgtggaagcc acccgggagt 120
ttgaggaggt tgtggtggat gagagccctc ctgattttga aatacatata actatgtgtg 180
atgatgatcc acccacacct gaggaagact cagaaacaca gcctgatgag gaggaagaag 240
aagaagaaga aaaagtttct caaccagagg tgggagctgc cattaagatc attcggcagt 300
taatggagaa gtttaacttg gatctatcaa cagttacaca ggccttctca aaaaatagtg 360
gtgagctgga ggctacttcc gccttcttag cgtctggtca gagagctgat ggatatccca 420
tttggtcccg acaagatgac atagatttgc aaaaagatga ttaggatacc agagaggcat 480
tgggtcaaaa atttggtgct cagaatgttg ctcgag                                     516

```

<210> 1582

<211> 684

<212> DNA

<213> Homo sapiens

<400> 1582

```

gaattcggcc aaagaggcct actcctgcct cggcctcccg agtagctggg actacaggca 60
ccggacacca cgcccggcta atttttttgg tattttttat agaggcgggg tttcaccgtg 120
ttagccagga tagtctcaat ttctgtatct cgtgatctgc ccgccttggc ctcccaaagt 180
gctgggatta taggcgtgag ccaccacgcc cggcctctat ttttgaaagt taccttttgt 240
cattttttta tctgcagtag tgtggattag aaacctggct cagtccctacc actaaaataa 300

```

```

ttctttaaag ttggatgaaa cattaaaaaa atcttgcttt agtgtcacaa tgatcaggca 360
agaagacaat aattttatga aaattaaggt tttaccttga gagcattctc tggctctgat 420
aaggatgagg ccattgtttct tgggactgta aaaagcaggg gaccagagac aaagtccaaa 480
gtccagccaa attggaagtg tagtaagaga acactcttac actattgggtg ggagtgtaaa 540
ttagttcaac cattgtggaa gacagtatgg tgattcctca aggatctaga actagaaata 600
ccatttgagc cagcaatctt attactgggt atatactcaa aggattataa attattctac 660
tctaaagaca caggcactct cgag 684

```

<210> 1583

<211> 464

<212> DNA

<213> Homo sapiens

<400> 1583

```

gaattcggcc aaagaggcct agcttctacc aaatttaacg cagcttaatt agggaccagg 60
tacatatttt cttctgaaca tttttggtca agcatgtcta accataaaag caaatggaat 120
ttaagagggt agattttttt ttccatgatg cattttgtta ataatgtgt caagaaaata 180
aaaacaagca ctgagtgtgt tctcttgaa gataagggtc taatgaaaaa taaaagatag 240
atatttggtta tagcttgaca ttttaacagt catagtatta gacgtttcgt gaccagtgc 300
ttttggactc tctcaggatc aaaatacgag tctgccaaact gtattaaac ctcctccacc 360
ccctccacca gttggtccac agcttcctgg tgggtcgttg tcatcaaac cattgggccc 420
aaatgaacat gaagcagatg cagcttgagg ggcccgggct cgag 464

```

<210> 1584

<211> 660

<212> DNA

<213> Homo sapiens

<400> 1584

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gaattcggcc aaagaggcct acaaagaggc ctaggaatcc tgttcttggt caaatcctgt 60
ggttgatgct caacacacaa aaccaaaaaa ctgtttgttc ttggcataaa aatgaaatga 120
actcttgctt attttcttat aaagaatgaa gtttttagatc taaaggaatt tggatacact 180
ttatttccct tgtttttttt ccagtttggt ttctgacctg tgttgggtgg gggggttagg 240
tatgcagtga gccagagcag ttgactgtag gtgtattctg atttttagcc tctcaagagg 300
actgtcataa caggatagcc atgattccaa taacactggg aggtggatga aacattctga 360
ggatagctgc aggttgtaga tgggcttgct tactttggag ctgggtggtt ggggtgggtt 420
ctcagggggg tagtgagaag ggaggaaaaa cgatgagatg taagtcagat taaaagatgc 480
ctgcatcagc atgagaagcc tactgctaag ggtcaatcat catacaggat gtattttcaa 540
tattaagcag atatggtaga gatttcaatc attgttggtc tgattggcct tagagctctg 600
gtaaaacgct gcatcagagc agagcagaca cctgctgagg tcccagggtc agagctcgag 660

```

<210> 1585

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1585

```

gaattcgcgg ccgcgtcgac acagaaagtt atagagatta tattgtgatg ctggaacttg 60
gagtgcagaca cacatcattt ggcatttgag ttgaatggta attcacagta atgctgccgt 120
tgttcgggac ttaaagacac ttgacctgtt tgggctgttg ccacttaaaa gttcatgacc 180
acaaatgtcc acagtgtctt cctctgagga aactcgaatc ctgaaatgga aattctttgt 240
ggcagataac tggcttatga caccttgaaa agttcaagtg ctcatataac acaccacact 300
gaacccctt tccacagca atatgttcac tatgttacca atttgcaact tgtgcttcaa 360
tagtggaaac tactttcatt gttaacactg atctcgag 398

```

<210> 1586

<211> 652

<212> DNA

<213> Homo sapiens

<400> 1586

```

gaattcggcc aaagaggcct actgttaatg gcgggcagta gccgctgagg ggattgcaga 60
taaccgcttc cgcacggggg aaagtctacc ctgcctgcc a tttctgctc gccgtcagcg 120
ccggagctcg ccagcatgtc tgttggtaccg cccaatcgct cgcagaccgg ctggcccgcg 180
ggggctactc agttcggcaa caagtacatc cagcagacga agccccctac cctggagcgc 240
accatcaacc tgtacctctt taccaattat acttttggt a caaaagagcc cctctacgag 300
aaggacagct ctgttgagc cagatttcag cgcagaggg aagaatttga taaaattgga 360
atgaggagga ctgtagaagg ggttctgatt gtacatgagc accggctacc ccatgtgtta 420
ctgctgcagc tgggaacaac tttcttcaaa ctacctggtg gtgaacttaa cccaggagaa 480
gatgaagttg aaggactaaa acgcttaatg acagagatac tgggtcgtca ggatggagtt 540
ttgcaagact gggctattga cgattgcatt ggtaactggt ggagaccaaa ttttgaacct 600
cctcagtatc catatattcc tgcacatatt acaaagccta aggaaactcg ag 652

```

<210> 1587

<211> 745

<212> DNA

<213> Homo sapiens

<400> 1587

```

gaattcggcc aaagaggcct attcagagtg ggatattcaga tcttttagtgt gaagatacat 60
ctacattaaa ccaggaatca ctagaactga catttgga a gaaaaatttg gaaaatttta 120
aaactgtgaa ggttgatcat ggaaattaaa gaggaagggg catcagaaga agggcagcac 180
tttcttctta cagccaggcg caatgatccc ggggactgtc agttcacaag tatccagaag 240
actccaaaat gaaccgcagt tggaattcat ccttgcatgc aaggatctcg tggctcctgt 300
ccgtgatcgt aaactgaata cactggtgca gatctccgta atccaccccg tggagcagag 360
tctgacaaga tactccagca ccgaaattgt ggaggggaaca agggaccacac tgtttttgac 420
tgggtgtcaca tccccatctg agtatcccat ctatgaggag accaaaataa aactaacagt 480
ctatgatgtc aaggataagt ctcatgatac cgttcgaacc agtgtcctac cagaacataa 540
ggatcccccg ccagaagttg ggcgaagttt cttgggctat gccagtttta aagtgggaga 600
gctgctgaag tcaaaggagc aattgctggt cctgagcctg agaacttcag atgggtggca 660
agtgtgtggc accatagaag tcagtgtcgt gaagatgggg gagattgagg atggggaagc 720
cgaccacatc accacagatc tcgag 745

```

<210> 1588

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1588

```

gaattcggcc aaagaggcct aggcaaacag aagtaattta tgattatgat gctagctaca 60
tatatattcc ctctctggca aaaactattt gtccacaca tgatccta tgtacacgca 120
tttctcgag 129

```

<210> 1589

<211> 571

<212> DNA

<213> Homo sapiens

<400> 1589

```

gaattcggcc aaagaggcct agaccaaact gcatcaattg ttggagaatc aaaagaactc 60
ttctgtacc ctggcagagc atttgagat taaagaagca ttgagaaag aagttggaat 120
cataaaagcc agcttgagag aaaaggaaga agaaagccaa acaaaaatgg aagaagtctc 180
caaacttcag tcggagggttc agaatactaa acaagcatta aaaaaattag agactagaga 240
ggtagtgtgac ttgtctaaat ataaagcaac aaaaagtgtat ttggagacac agatttctag 300
cttaaatgaa aaattggcca atctgaatag aaagtatgag gaagtatgtg aggaagtgtt 360
gcatgccaaa aagaaggaaa tatctgcaaa agatgagaag gaattactgc atttcagcat 420
tgagcaagaa attaaggatc agaaggaacg atgtgataag tccttaacaa caatcacaga 480
gttacaaga agaatacaag aatctgctaa acaaatagaa gcaaaagata ataagataac 540
tgaactgctt aatgatgtgg aaagactcga g 571

```

<210> 1590
 <211> 490
 <212> DNA
 <213> Homo sapiens

<400> 1590
 gaattcggcc aaagaggcct acctcacgcc atgccccagc tcatggctta catcccatg 60
 ccaggcagag ctggaacggg agcgggcaca gctgctggtc cgggccacga tggctgaaga 120
 gcaactttct gagctacagg agtacgtgga ccagcacctg ggcagggtggg cagagggagc 180
 tgggtgtgac ccagggggcc tggctctggtt ggaatgaagg atgatggctg cctcaggcgc 240
 taaaagcaga cctgtccaca gctgggcaag tcacttaagc atggttcctc tgagcaggta 300
 caagcacgaa atcctgaggc tgaggaagct ggcagggtgca ggggacccct ggaagtgagg 360
 ggtgtgctt ccagccaagc ccagcatcc aaggaccggc agccactagg ccgtctcca 420
 aggagcagag cagagcagag ctctcagcc agcacagaac cctcccaccc agccccccat 480
 aaaactcgag 490

<210> 1591
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 1591
 gaattcggcc aaagaggcct acagtttcta tgtagtgacc attttactcc tgactctctt 60
 gacatcagat ggggtattcg atatttaaaa caaactgcag ttccaacaat attttctttg 120
 cctgaagaca atcagggaaa agacccttct aaaaaaaaaat ccagaagaa aaacttggaa 180
 gatgagaaag aagtatgccc aaaagccaag tcagaagaat catttgtatt aaatgagaca 240
 aagaaaaata tagttaacac agatgtgccc catcaacatc cagaattact tcattcatct 300
 tccttggtta agccaccagc tcccaaaaca ggaagtatac aaaataacat gttaactctt 360
 aatctagtta aacaacatac tgggaaacca gaatctacat tggaaacatc agttaacca 420
 gatacaggta gaggtggttt tcacacatgt tttgagaatc taaattctac aactattact 480
 ttgacaactt caaattcaga aagtattcat caatctttgg aaactcaaga agttcttgaa 540
 gtaactacca gtcattctgc ttgctcgag 569

<210> 1592
 <211> 575
 <212> DNA
 <213> Homo sapiens

<400> 1592
 gaattcggcc aaagaggcct aggtgtatca agtaaggtgg ctctgctctg ttcacgcca 60
 actaggggaa gcgaatgagg agtttgactt ccgtgtacaa cagctgggtg ccaaggaatt 120
 gggccagaca gggacacggc tcaactccagc tgacaaagca gagcacatga agcgacaaag 180
 acaccccaga ttgcgcccc agtcagccca gtcttctttc cctccctccc ctggtccttc 240
 tcctgatgtg caactggcaa ctctggctca gagagtcaag gaagttttgc cccatgtgcc 300
 attgggtgtc atccagagag acctggccaa gactggctgt gtagacttga ctatcactaa 360
 tctgcttgag ggggccgtag ctttcatgcc tgaagacatc accaaggga ctcagtcctt 420
 acccacagcc tctgcctcca agtttccag ctctggcccg gtgacccctc agccaacagc 480
 cctaacattt gccaaagtct cctggggccc gcaggagagc ctgcaggagc gcaagcaagc 540
 actatatgaa tacgcaagaa ggagattcac tcgag 575

<210> 1593
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 1593
 gaattcggcc aaagaggcct aaaatactcc acctccttga gatcttcttt gatttgactc 60
 tgactcttca tgtcagccac cactggttta gtccaggccc ttatcgattc ttatttgat 120
 tattgtaata atttccaaac caggttcctt ttttccatc ttgtttctgg ctgtagtgtg 180
 cattgctacc agaaagatac tgctatactc gag 213

<210> 1594

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1594

```

gaattcggcc aaagaggcct agtcaacagc atttcttgtt ccaagatcac ccttctgagt 60
acctctctgg ctgccaaatt gccagggcct tcacagtttg attccatttc tcagctccaa 120
gcatttaggta aaccaccaa gcaatcctag cctgtgatgg cgtttgacgt cagctgcttc 180
ttttgggtgg tgctgttttc tgccggctgt aaagtcacat cctcctggga tcagatgtgc 240
attgagaaag aagccaacaa aacatataac tgtgaaaatt taggtctcag tgaaatccct 300
gacactctac caaacacaac agaatttttg gaattcagct ttaatttttt gcctacaatt 360
cacaatagaa ccttcagcag actcatgaat cttacctttt tggatttaac taggtgccag 420
attaactgga tacatgaaga cacttttcaa agccatcacc aattaagcac acttggtgta 480
actggaaatc cctcgatatt catggcagaa acatcgctta atgggcccac gtccactgaag 540
catcttttct taatccaaac gggaatatcc aatctcgag 579

```

<210> 1595

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1595

```

gaattcggcc aaagaggcct atatacactt tagtattatt gagtaaatag gacagtgttc 60
agtttgattt ttattctgat gtgttttaaa aaattcaggg tactactcga g 111

```

<210> 1596

<211> 722

<212> DNA

<213> Homo sapiens

<400> 1596

```

gaattcggcc aaagaggcct atttttttgc gtttttagtg gagacgggggt ttcactgtgt 60
tgccaggat ggtcttgatc tcctgacctc gtgatacacc tgccctggcc tcccaaagt 120
gtaggattgc aggcgtgtgc caccacaccc ggcccagtaa ttctaatttt gccctttgcc 180
ttgtgatctt tgctttgacc ttgacctgt gatctttatt gccctttaa gcattgtgac 240
ttgtgacct actccctgtt catacacccc ctccctttt aaagtcctta ataaaaacct 300
gctggttttg tggtctcagg gacatcatgg acctaccgat atgtgaggtc acccccagag 360
gccagctgt aaaattcctc ctttgtactc tttctcttta tttctcagac tggccgacag 420
ttagggaaaa tagaaaggac ctatgttgaa atattggggg ctggttcccc cgataaaaa 480
gtaaaacagg acatttttac taagaaatat aaatatcttt tgtttctctg aaataagaag 540
tcaaaagtat ttaagcttca actcatagtc attaatgtct tagaattgta tcttatttag 600
agataattta gatattcaat gaatatccat cctttaattt agcatagcaa attttgaggg 660
tatagttaac aaaaagattt taaaaacctt taaaaatgtt tgtattagtc aggtatctcg 720
ag 722

```

<210> 1597

<211> 601

<212> DNA

<213> Homo sapiens

<400> 1597

```

gaattcggcc aaagaggcct agtgcactt cgtgatcacc ctcaaccaca tggctctctgc 60
ctccatgac acgctcctgc ttccatcct catcttctc tgggccatgt tgtccgtccc 120
caggcccagc cgccggttct ggatgatggc catcgtctat actgagggtg caattgtagt 180
caagtatttc ttccaatttg ggtctttcc ctggaataag aatgtggagg tgaacaaaga 240
taaacctgat cccccccaa acatcatagg agtggaaaag aagggaaggt atgttctcta 300
tgacctcatc cagctcctgg ctctgttctt tcacgatca attttgaagt gccatggctt 360
atgggatgaa gatgacatga ctgaaagtgg catggccagg gaggaatcag atgatgagct 420
ctccctcggc catggcagga gggactctc cgattctctc aagtcacatc acctggccgc 480

```


gtctgtggag tcagtgcag tgaccttccc ggagcagcag acagctgtcc ggaggaagcg 540
 ctccggcagc agctccgagc catcccagag atccagcttt ttttcaaaca gataccctga 600
 g 601

<210> 1598

<211> 492

<212> DNA

<213> Homo sapiens

<400> 1598

gaattcgccg ccgcgtcgac ctaagaagtc cagataactaa gagcaaagat gtttcaaact 60
 gggggcctca ttgtcttcta cgggctgtta gccagacca tggcccagtt tggaggcctg 120
 cccgtgcccc tggaccagac cctgcccttg aatgtgaatc cagccctgcc cttgagtcct 180
 acaggtcttg caggaagctt gacaaatgcc ctccagcaatg gcctgctgtc tgggggcctg 240
 ttgggcattc tggaaaacct tccgctcctg gacatcctga agcctggagg aggtacttct 300
 ggtggcctcc ttgggggact gcttgaaaaa gtgacgtcag tgattcctgg cctgaacaac 360
 atcattgaca taaaggtcac tgacccccag ctgctggaac ttggccttgt gcagagccct 420
 gatggccacc gtctctatgt caccatccct ctccgcataa agctccaagt gaatacgccc 480
 ctggtactcg ag 492

<210> 1599

<211> 430

<212> DNA

<213> Homo sapiens

<400> 1599

gaattcgccc aaagaggcct atttttttta agaactctaa agtttcccca agagcttggg 60
 gtctttttga cttacacttt tgtaattaat gtatagtttt attacagtgt gatcacagaa 120
 tatggccaat ttcttttggg aagaaattac ttacaatttt tttttggtag cctaataata 180
 aatcaagttt tgcaaaacttt tcttataatt ttttcttaat gggctagaca gaagatcctt 240
 ctctttaatt attcatttat tcatcgagga ttgtttccac catgtgtctc atacatgcca 300
 ggcattgtat taggcattgc aggatataaa ataagtcata agctttgtct tagattggta 360
 aagtttggat ggaacacaga cacatgtaga cctaattata atacagaaag aaatgcaacc 420
 gcggctcgag 430

<210> 1600

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1600

gaattcgccc aaagaggcct aggtataact caaacttttt gtggacattc ttttcaaat 60
 tttttaagaa ccctgtacta taaaaggttg agtaaaaaca ggaaagcgtg ctataagttc 120
 aaatctgttg tattacccta aattagataa accaacctga attatagtag atttctcaat 180
 agatgaggaa ctgaaaaata ctatgtaaaa tatcttccaa aatgcttttt atactttttt 240
 tatttgaat ttggtctatc taaaatgttc gttagcttaa cttaatgggc gttattggat 300
 tcatatgact aacgtttcct cagtattgta atgcttgaaa tatttgaaag aaaaaatgtt 360
 gttttttagt tgaaactggg atatataact ctgtgctcga g 401

<210> 1601

<211> 524

<212> DNA

<213> Homo sapiens

<400> 1601

gaattcgccc aaagaggcct atatgaatac tgcctcagcg tccatctgct tgtcctgttc 60
 ccagcttgct atgcttgact aacatatttt gaggcagtct tcacgcagct cctgttttca 120
 tgttctgggt agataagacc ccataccctg agctgcttga ccacattact tctgctttta 180
 gcctcgggaa cctgataagg taacccccga gttcctgtgc tgagtctcgt gcttccttca 240
 aatgaactaa tccaaccgtg ctgtgggaaa cccacctagg taaccccata aaggatccaa 300

```

ccccacaggcc cctccgtttc tcgttcccca cctgctggtc gaaggagcag gtccctggatg 360
gctcctcccc tcttctcttt ggtcttgcca ggggtgctgt cctcttcctt ccagacctgt 420
gagtagtaaa cttgattcat tttgcagtct gagtgtccct cactgtgctg cacctgactg 480
caccaagccc taaaccgtcg attgaattct agacctgcct cgag 524

```

<210> 1602

<211> 496

<212> DNA

<213> Homo sapiens

<400> 1602

```

gaattcggcc aaagaggcct aggtcagcat gctgctcctc tgtcacgctc tcgctatagc 60
tgttgccag atcggttatct tctcagaaag ctgggcattt gccagaaca tcaacttcta 120
taatgtgagg cctcctctcg accctacacc atttccaaat agcttcaagt gctttacttg 180
tgaaaacgca ggggataatt ataactgcaa tcgatgggca gaagacaaat ggtgtccaca 240
aaatacacag tactgtttga cagttcatca cttcaccage cacggaagaa gcacatccat 300
caccaaaaag tgtgcctcca gaagtgaatg tcattttgtc ggttgccacc acagccgaga 360
ttctgaacat acggagtgtg ggtcttgctg tgaaggaatg atctgcaatg tagaattacc 420
caccaatcac actaatgcag tgtttgccgt aatgcacgct cagagaacat ctggcagcag 480
tgccccctcca ctcgag 496

```

<210> 1603

<211> 350

<212> DNA

<213> Gallus sp.

<400> 1603

```

gaattcggcc aaagaggcct acatcttctt aatatcagaa acaattctga ctgaggtttt 60
gactgatctt ctttttcatg acagtgggat tttttctccc aacaatgaaa aggaagaacc 120
ttttccaaag cctattgctc tgctacagtt tgctcagagc tgccagttct cacctcataa 180
tcgaggagaa gacagaatgc aacctttcaa agagcaacaa aatgaacctc ccagatctcc 240
cacccatctc cattgtagat ttaactaaaa gatcccagaa agtcagcaga aaagaggcag 300
agaataagaa atcttccaag aaaaatgctg aactgaaggc acgtctcgag 350

```

<210> 1604

<211> 276

<212> DNA

<213> Gallus sp.

<400> 1604

```

gaattcggcc aaagaggcct aaaaacattg ctccaaaaaa ttactgaagc atctaaagga 60
tttcagatgg aaaaaataga agacgggtat gaaaatatga accaattcac agtgaacctc 120
agtagagaag aaaagataat acgagaaatt gattttgaca gagaggagga ggcagaagag 180
gaagaggagg agacagtaga aggggaagat ctggatgaag ttcacacgga gtcacgggga 240
gaggaggggg aggaagaaga gaaggagggc ctcgag 276

```

<210> 1605

<211> 272

<212> DNA

<213> Gallus sp.

<400> 1605

```

gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctctat tttctcttcc 60
tgtgttttat ggtcttccaa gtgttcagaa acatcagtggt aaagcagtc agcctgccag 120
cgatgagcaa ggcccgccgc ctgcattacg aggggctgat ctttcgggtc aagttcctga 180
tgctcatcac cctggcttgt gcagccatga cagtcatttt cttcatcgtg agccagggtga 240
cagaaggcca ctggaagtgg gggcgtctcg ag 272

```

<210> 1606

<211> 249

<212> DNA

<213> Gallus sp.

<400> 1606

```

gaattcggcc aaagaggcct aatctagatc tgctctcaga tgctccctcc cttcctgttc 60
tggatggccc ttatcttatt tccacctgag gtcaatggca cttccctaaa taagtttccc 120
aaagaaacaa caaatgcaa caccaccct gacaaaaagc cacacgatgc tacttttttt 180
gctcgtcgta tgcagcactg cagcccatgc agaaatgcc aattcccctc ttccaacccc 240
ccactcgag                                     249

```

<210> 1607

<211> 107

<212> DNA

<213> Mus musculus

<400> 1607

```

gaattcggcc aaagaggcct acaaaataac tagcaaccat gaagtgggtg gaatcaattt 60
ttttaatttt cttactaaat ttctactgaat ccagaacaca actcgag             107

```

<210> 1608

<211> 416

<212> DNA

<213> Mus musculus

<400> 1608

```

gaattcggcc aaagaggcct acactttctt ctgctgatag tagacctgct gaagaccttt 60
ggaccagccg ctgagccacc atgatctcta ggctccttcc cttctctgct ctcgggctgt 120
gtgttgggca aacagacatt cctgaaaatg ggtctcctcc caagcccagc ctcagtgcct 180
ggcccagcac agtgtttccc accaagagcc acgtgacaat gcaatgtaag agccccaccc 240
cgagtaaata cttcatcctc aaaaaggaag gtttcgcttt gaattctgtg aagccatata 300
atgtgacaga ggagacggct gattttcatt tcaccgacct acgacagaat gatggcggac 360
actacacctg tgaatactat agcaaatggc cccatgacac accgtcacac cccagc     416

```

<210> 1609

<211> 121

<212> DNA

<213> Mus musculus

<400> 1609

```

gaattcggcc aaagaggcct aggtttcttg gagcttccac aaacttaaaa ccatgaaaca 60
tctattattg ctactattgt gtgtttttct agttaagtcc caaggtgtca acgttctcga 120
g                                             121

```

<210> 1610

<211> 205

<212> DNA

<213> Mus musculus

<400> 1610

```

gaattcggcc aaagaggcct actgggacag tgaatcgaca atgccgtctt ctgtctcgtg 60
gggcacacct ctgctggcag gcctgtgctg cctgggtccct gtctccctgg ctgaggatcc 120
ccagggagat gctgccaga agacagatac atcccaccat gatcaggatc acccaacctt 180
caacaagatc acccccaacc tcgag                                     205

```

<210> 1611

<211> 219

<212> DNA

<213> Mus musculus

<400> 1611

```

gaattcggcc aaagaggcct atgcactaac ttcaggaacc agctcatgat ctcaggatgt 60
atggaaaaat aatctttgtt ttactattgt cagcaattgt gagcatatca gcattaagta 120
ccactgaggt ggcaatgcac acttcaacct ctttcttcag tcacaaagag ttacatctca 180
tcacagacaa atgatacgca caaacgggac acactcgag 219

```

<210> 1612

<211> 656

<212> DNA

<213> Mus musculus

<400> 1612

```

gaattcggcc aaagaggcct actctctgtc tctcgattac aatcatgatt tccagaatgg 60
agaagatgac gatgatgatg aagatattga ttatgtttgc tcttggaatg aactactggt 120
cttgctcagg ttccccagtg tacgactacg atccatcttc cttaagggat gccctcagtg 180
cctctgtggt aaaagtgaat tcccagtcac tgagtccgta tctgtttcgg gcattcagaa 240
gctcattaaa aagagttgag gtcctagatg agaacaactt ggtcatgaat ttagagttca 300
gcatccggga gacaacatgc aggaaggatt ctggagaaga tcccgcctaca tgtgccttcc 360
agagggacta ctatgtgtcc acagctgttt gcagaagcac cgtgaaggta tctgccagc 420
aggtgcaggg cgtgcatgct cgctgcagct ggtcctcttc cacgtctgag tcttacagca 480
gcgaagagat gatttttggg gacatgttgg gatctcataa atggagaaac aattatctat 540
ttggtctcat ttcagacgag tccataagtg aacaatttta tgatcgggtca cttgggatca 600
tgagaagggt attgcctcct ggaaacagaa ggtacccaaa ccagccggca ctcgag 656

```

<210> 1613

<211> 166

<212> DNA

<213> Mus musculus

<400> 1613

```

gcagtctcag aagttcccca acattgtgct tctatatttc ctctctcagt tgagtctcac 60
catgcatcta gtcactcaaa ttagaaatgg tgtgcttatt tttggatcc tttctcttc 120
catatccagt ctaatgccta tctatgctta ttctgaatcc ctcgag 166

```

<210> 1614

<211> 805

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (337)

<400> 1614

```

gaattcggcc aaagaggcct acttttcaga acctttttta aagggttgggt taactacctc 60
agtagcagag gattgaacta taccctgtct gtactgtaca tagaaaatct ttgtagataa 120
aagcaaggct tgttaaatat gatatgaggg taagatttta atataccaaa tgtaacattc 180
ttagttgcct ttagtttcag aggcttgtaa gacttctca tgaccatcat aacaggcctt 240
gcttttgcg tattttgtgg ctgaaaaaagc agccttgctt cttcagatat ttagttatt 300
tggatgtata atagtttagc aagatgttac ttttgnaga catcagatgt tcaaaaaaaa 360
agtgcattcc aacttgtaact aaatactgca gtgtcccttt ataaaaagtc agactaaaac 420
tgacaattgt acagcaaaagc ctgacatttg gatattttga agttttttca taaatcatag 480
aaattagtat atggctgtag ttttagctttt taggtaaaag gtatgtttca ttagtgcat 540
tgttattgct gatcactata aaaatgtgaa tcagcttttc atttcttatg caggtcatga 600
taacttgtag aatagagtac aatcatttgt gctatgtttt taattttcta aagcaccttg 660
atgacagtga gtgttcagtg gtgaagcatc ctctattgaa tcacctcaa aaaatttttt 720
tgccaagtcc taagttgata gcttaaagtc aaaagtaaaa ttatagttaa agtaggactt 780
ggtgtaaaaga aacacccccc tcgag 805

```

<210> 1615

<211> 111

<212> DNA

<213> Mus musculus

<400> 1615

```

gaattcggcc aaagaggcct agttttttca agggggaaca tggcaaagggt gttcagtttc 60
atccttggtta ccaccgctct gataatgggc agggaaattt cggcgctcga g          111

```

<210> 1616

<211> 549

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (130)

<400> 1616

```

gaattcggcc aaagaggcct agtttncggt atctgctggt cacagctctc cactgtaatc 60
cgaatacttt gccagtcac taatctcttt ggagataaaa ttcattagtg tgttactaaa 120
tgttaatttn cttttcgcca aaatacagta ccgtgtctga attaattatt aatatttaaa 180
atacttcatt ccttaactct ccctcatttg ctttgcccac agcctattca gttcctttgt 240
ttggcaggat tctgcaaaat gtgtctcacc cactactgag attgttcagc ccctgatgta 300
tttgatttga tttgtttctg gtggtagctt gtcctgaaat gtgtgtagaa agcaagtatt 360
ttatgataaa aatgttgtgt agtgcattgt ctgtgtggaa ttcagaggaa aaccagatt 420
cagtgattaa caatgccaaa aaatgcaagt aactagccat tgttcaaatg acagtgggtgc 480
tatttctctt ttgtggcctt ttagactttt gttgccctaa aattccattt tattgggaac 540
cgccctcag          549

```

<210> 1617

<211> 441

<212> DNA

<213> Mus musculus

<400> 1617

```

gaattcggcc aaagaggcct agcaggagcg gaggggaacag gagcggagggt aacagggaacg 60
gaaggagcag gagcggcggg agcaggagca ggagcgtctt cgggccaaga gggagatgca 120
ggagagagag aaagccctgc gactccaaaa ggaacgactt cagaaggaaac tggaggagaa 180
gaagaggaag gaagagcaac agcgccctggc tgagcagcaa ctgcaggagg agcaggcaaa 240
gaaagctaag gaggtggcag cagccaggaa agtcctgaac atgactgtgg atgtgcagtc 300
tcctgtttgt acctcatatc aaatgactcc acaaggaccc aatccatcc ccaagatcag 360
cgtagacgat tatgggatgg acctaaatag tgatgactcc acagatgatg agtcccaccc 420
ccggaaaccc atcccctcga g          441

```

<210> 1618

<211> 110

<212> DNA

<213> Mus musculus

<400> 1618

```

gaattcggcg ccgcgtcgac cagcttttgg taccatgagg tcaattcaga tgctgctcct 60
ggctgctctg cttctgggga cttttctgca gcatgccaga gctgctcgag          110

```

<210> 1619

<211> 503

<212> DNA

<213> Mus musculus

<220>
 <221> unsure
 <222> (66)

<220>
 <221> unsure
 <222> (106)

<400> 1619
 gaattcgcg cgcgctcgac ggaccccgca cccccctccc ccacatccac atcaccceget 60
 gtgcanccag gagaggaggg tcagggtgac gacctctccc cagacngcct gtccgagcag 120
 ggcaaacagc agcccccgag cagcgcatgc gcagcctgtg ggagcggggt gcacctgggtg 180
 cagcggtact tggcggaggg cagactctac caccggcact gcttccgatg tcggcagtg 240
 tccagcacgc tggctccagg ctcttacagt agtggggccc aagaaggcac ctttgtgtgt 300
 gcagaacgct gcaccaggct gggtccggga agtcggtcag gaactaggct cctttcacag 360
 caaaggcagc agccagcggc ggacagaagct aaagatgcag aggataatga cccaagcctg 420
 agtgtggctg cagtggctga ggacagacagg ctccaaggcca gctccgagg acagtccac 480
 accccaacca agcacacctc gag 503

<210> 1620
 <211> 329
 <212> DNA
 <213> Mus musculus

<400> 1620
 gaattcgcg cgcgctcgac actcaattaa ccatgggcga tggtgactcg ccaatgtgcc 60
 tctctgcegt ttcattcaag ggaataagat gctgggtgga caaactgtta ctttgggctc 120
 ttacaatttc taccacactt cagaatgctg cagtggattg tacgaggggtg gaaaataacg 180
 aattaccttc tccaaatctg aactcaagta tgaacgtggt caggatgggc caaaatgtat 240
 ctctgtcttg ttccaccaag aacacatcag tagacatcac ctattcgctc ttctggggta 300
 caaaatatct agaaagcaag aaactcgag 329

<210> 1621
 <211> 267
 <212> DNA
 <213> Mus musculus

<400> 1621
 gaattcgcg cgcgctcgac ccgagccaga gccaacatga agacagccac agtcttggtt 60
 ctgggtggctt tgatcactgt ggggatgaac actacctatg tagtgtcttg ccccaaagaa 120
 ttgaaaaaac ctggagcttg tcccaagcct tcaccagaaa gtgttggaat ttgtgttgat 180
 caatgctcag gagatggatc ctgccctggc aacatgaagt gctgtagcaa tagctgtggt 240
 catgtctgca aaactcctgt cctcgag 267

<210> 1622
 <211> 263
 <212> DNA
 <213> Mus musculus

<400> 1622
 gaattcgcg cgcgctcgac aacatgttgg gaacactggt tggctctgcc ataggaggag 60
 ctctggctgt ggcaggggca cctgtggccc tggctgccat gggcttact gggacaggca 120
 ttgcagctgc ctccatagca gccaatgata tgtctgctgc agcaattgcc aatggaggtg 180
 gagttgcagc aggaagcctg gtagecacac tccaatcagc aggggtcctt ggactctcca 240
 catcaacaaa tgcacacctc gag 263

<210> 1623
 <211> 185
 <212> DNA
 <213> Mus musculus

<400> 1623

gaattcgcgg cgcgctcgac cgattgaatt ctaaacctgc cttggttacc tttcctttcc 60
 cctttaagag gaattagcta tagaaccgct ttgtaaagat gcttcttgat attttacttt 120
 tgttcctttc cccaaccatt cccacttccc cttctctcca cagcccgat cccactccac 180
 tcgag 185

<210> 1624

<211> 695

<212> DNA

<213> Mus musculus

<400> 1624

gaattcggcc aaagagccta ggcacaatga agtgggtaac ctttatttcc cttctttttc 60
 tcttttagctc ggcttattcc aggggtgtgt ttcgtcgaga tgcacacaag agtgagggtg 120
 ctcatcggtt taaagatttg ggagaagaaa atttcaaagc cttggtgttg attgcctttg 180
 ctcatgtatc tcagcagtggt ccatttgaag atcatgtaaa attagtgaat gaagtaactg 240
 aatttgcaaa aacatgtgtt gctgatgagt cagctgaaaa ttgtgacaaa tcacttcata 300
 cccttttttg agacaaatta tgcacagttg caactcttcg tgaacacctat ggtgaaatgg 360
 ctgactgctg tgcaaaacaa gaacctgaga gaaatgaatg cttcttgcaa cacaaagatg 420
 acaaccacaaa cctccccga ttggtgagac cagaggttga tgtgatgtgc actgcttttc 480
 atgacaatga agagacattt ttgaaaaaat acttatatga aattgccaga agacatcctt 540
 acttttatgc cccggaactc cttttctttg ctaaaaggta taaagctgct ttacagaat 600
 gttgccaaagc tgcgtataaa gctgcctgcc tgttgccaaa gctcgatgaa cttcgggatg 660
 aagggaaggc ttcgtctgcc aaacagcgac tcgag 695

<210> 1625

<211> 692

<212> DNA

<213> Mus musculus

<400> 1625

gaattcggcc aaagaggcct acgaagcact tggtcagacc caggaaactc ttctctagtc 60
 gcatccagct cggtagcgag caccagagta atatggtctg caagggtgctc atcgccctct 120
 gcatcttcac cgcaggactg aggggtacagg gtccaccaac agtcccattg cctgtctctc 180
 tcatgacaaa aagttcagca cctgtggcca cctggactac ctctgtctca cacactgcta 240
 gggccaccac cctgtagcc agtgccactc acaacgcctc agttctcgc accactgccg 300
 catccctgac atctcagctc cccactgacc acagagaaga agctgtcacc agcccacctt 360
 tgaagagggg tgcacacagc acagactcct cacctgccgg gttccctca acaagcagtg 420
 atggccactt ggcacccaca cctgaggaac acagtcttgg aagtccctgaa gcaactgtgc 480
 cagctactgg gtcacagtca cccatgtccc tgtcttctca ggctccaacc tcagcaacca 540
 catccccgc aacttcccta tcggagtctc tctctgctc cgttacctct agccacaact 600
 ctacgggtggc caacatccag cccacagaag ctccaatggc acctgcgtca ccaacagaag 660
 agcacagctc tagtcacaca cccagactcg ag 692

<210> 1626

<211> 130

<212> DNA

<213> Mus musculus

<400> 1626

gaattcggcc aaagaggcct agggctggat gttcaacaag atttgtgatt ccaaaataat 60
 cttctctctt gggattttcc tctgtaaggt caaagccgtt gggatatgat tacgagtccc 120
 cccactcgag 130

<210> 1627

<211> 495

<212> DNA

<213> Mus musculus

<400> 1627

```

gaattcgcgg ccgcgtcgac ccctatgctg cctaggctga ccttgaactc ctgggctcaa 60
gcagtctacc caccctagcc tcctgtgtag ctgggattat agattggagc caccatgccc 120
agctcagagg gttgttctcc tagactgacc ctgatcagtc taagatgggt ggggacgtcc 180
tgccacctgg ggcagtcacc tgcccagatc ccagaaggac ctccctgagcg atgactcaag 240
tgtctcagtc cacctgagct gccatccagg gatgccatct gtgggcacgc tgtgggcagg 300
tgggagcttg attctcagca ctgggggat ctgtgtgtga cgtggagagg gatgagggtg 360
tgggagggat agaggggggc tgccctggccc ccagctgtgg gtacagagag gtcaagccca 420
ggaggactgc cccgtgcaga ctggagggga cgctggtaga gatggaggag gaggcaattg 480
gaatgcgcgc tcgag                                     495

```

<210> 1628

<211> 602

<212> DNA

<213> Mus musculus

<400> 1628

```

gaattcgcgg ccgcgtcgac gggaacctag ctgatgatag ggggttccat ctccaaactt 60
gtccattttg ttgcatattc taaggaccca gacataggct tgggtggccc tctcttgttt 120
ttcctggttt atgactttcg gctttgtgga atacggctga gatgaaagga tttattgacg 180
atgcgaacta ctccgttggc ctgttggtatg aaggaaacaaa ccttggaat gttattgata 240
actatgttta tgaacatacc ctgacaggaa aaaatgcatt ttttgtggg gatcttggga 300
agatcgtgaa gaagcacagt cagtggcaga ccgtggtggc tcagataaag ccgttttaca 360
cgggtgaagt caactccact ccagccgtgc ttgagatctt ggcagctctt ggaactgggt 420
ttgcttgttc cagcaaaaaa gaaatggctt tagtgcaaga attgggtgta tctccagaaa 480
acatcatttt cacaagtcct tgtaagcaag tgtctcagat aaagtatgca gcaaaagtgt 540
gagtaaatat tatgacatgt gacaatgaga ttgaattaaa gaaaattgca aggaatctcg 600
ag                                     602

```

<210> 1629

<211> 167

<212> DNA

<213> Mus musculus

<400> 1629

```

gaattcggcc aaagaggcct agtggttagta atctgattga ctgaatgcat ggacattatc 60
atctgttgct agccctgagc ttagtgttga caatatattt ggtattgaca aagagtatgt 120
ttgctttagg cccaaaagat aagaaaatag gcatagtgga gctcagag 167

```

<210> 1630

<211> 639

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (61)

<220>

<221> unsure

<222> (622)

<400> 1630

```

gaattcgcgg ccgcgtcgac tcctgtggca aatacccgga ttaaaaggtc gtgaaaatac 60
ntgagataat catgaaggca actctcatct tcttccttct ggcacaagtc tcttgggctg 120
gaccatttga acagagaggc ttatttgact tcattgctaga agatgaggct tctggcataa 180
tccttatga ccctgacaat cccctgatat ctatgtgccc cgtttgcgtc cagcctgaga 240
ccaccgtttc cctacgtccc accagggtta tggcctcatg cgacgagata aaagagcatc 300
ccgctcctt gtctatgtgt ggccatgttg gttttgaaag cttacctgat cagctggctg 360
atagatccat tgagcaaggc ttctgtttca atattctctg tgtgggggag actggaattg 420
gaaaatcaac actgattaac acattgttta atactaattt tgaagaactc gaatcctcac 480

```


atctttgtcc atgtgttaga cttagagctc agacatatga actccaggaa agcaatgttc 540
 gcttgaaact gaccattgta aatacagtgg gctttggtga ccaaatcaat aaagaagaca 600
 gctatcaacc aatagttgat tnacatagat gatctcgag 639

<210> 1631

<211> 390

<212> DNA

<213> Mus musculus

<400> 1631

gaattcggcc aaagaggcct agctaaaggg gagatctgga tggcatctac ttcgtatgac 60
 tattgcagag tgcccatgga agacggggat aagcgctgta agcttctgct ggggatagga 120
 attctggtgc tcctgatcat cgtgattctg ggggtgccct tgattatctt caccatcaag 180
 gccaacagcg aggccctgcc ggacggcctt cgggcagtga tggagtgtcg caatgtcacc 240
 catctcctgc aacaagagct gaccgaggcc cagaagggtt ttcaggatgt ggaggcccag 300
 gccgccacct gcaaccacac tgtgatggcc ctaatggctt ccctggatgc agagaaggcc 360
 caaggacaaa agaaaatgga gggactcgag 390

<210> 1632

<211> 676

<212> DNA

<213> Mus musculus

<400> 1632

gaattcggcg ccgcgtcgac ccccaacctt gcttctccta gatgcccaga cccagattca 60
 tcacagtgtc ctgctgttga tcctgctgct gggacttaaa ggagccgctg ggaaagagtt 120
 gaaggtgata cagcctgaga aatcagtttc tgttcgtgct ggagggtcgg ctactctgaa 180
 ctgcacagtt acatccctcc tcctgtggg gcccatcagg tggtagcgag gtgtaggaca 240
 caggagaaac ttgatataatt cttacacagg agaacacttc cccagaataa caaatgtttc 300
 agatactaca aacagaagaa acctggactt ttctatctgc atcagttatg tcaacttttc 360
 tgatgctggt acctactatt gtgtgaagtt ccagaaagga ccatcagagc ctgacattga 420
 gattcagttc ggaggcggca ctgagttggt tgtccttgga gccgctggaa aagagttgaa 480
 ggtgatccag cctgagaaat cagtttctgt tcgtgctgga ggggttgcta ctctgaactg 540
 cacagtgaca tccctcatcc ctgtggggcc catgaggtgg taccgaggtg taggacacag 600
 gagaaacttg atatattctt acacaggaga acacttcccc agaataacaa atgtttcaga 660
 tgctacaaag ctcgag 676

<210> 1633

<211> 203

<212> DNA

<213> Mus musculus

<400> 1633

gaattcggcc aaagaggcct agattctgcc ctaggatgct gactttcaac aagatgaaga 60
 ctacaacttg ttcccttctc atctgcatct cccttctcca gctgatggtc ccagtgaata 120
 ctgaggggac cttagaatct attgtggaga aaaagggtcaa ggaacttctt gccaatcgag 180
 atgactgtcc ctccacactc gag 203

<210> 1634

<211> 213

<212> DNA

<213> Mus musculus

<400> 1634

gaattcggcc aaagaggcct atggatcatg acacttcttt ttcttggcac taccggcagt 60
 cctgttcaga atgagcaagg ctttgtggag ttcaaaattt ctgggcctct gcagtacatg 120
 tgggtgtacc atgtggtggg cctgatttgg atcagtgaat ttattctagc atgtcagcag 180
 atgacagtgg caggagctgt ggtaactctc gag 213

<210> 1635

<211> 226

<212> DNA

<213> Mus musculus

<400> 1635

```
gaattcgcgg ccgcgtcgac cgagtacagg tgagtaatat taggtgtgta atttagctaa 60
ctagttaaca ggtttgaatc tgatcctggg aaccttagct tctgaccttt gtctctgcca 120
acacagtagg aattcagggt ctcacaactt ctttgcattc gctttagtta ctgctgctta 180
ggtagagcaa gacagcgctg caatgaaggg acaattatct ctcgag 226
```

<210> 1636

<211> 270

<212> DNA

<213> Mus musculus

<400> 1636

```
gaattcgcgg ccgcgtcgac gattgaattc tagaccccc cccttccaag ctgctgtgtt 60
gacgagactg cctgtctgcc tttcagggtg tgctactgaa ctgattttcc ctgttgttac 120
agagggttatt agtatttatt ttaattttgc tataatgttg ttatgcttta ctgtgtattc 180
tttttgtgtt ttaacttaac agcctgcact aatgtgaata ccaccaact gtgggggtca 240
catctggaac cttgtaaccc tgtgctcgag 270
```

<210> 1637

<211> 213

<212> DNA

<213> Mus musculus

<400> 1637

```
gaattcgcgg ccgcgtcgac actctttgac atgttcccaa accagttccg gtttgtgggg 60
aatgcccaga acaccttggc ccagcccacc gtgtggctca ccacgcgct caccacggct 120
gtctgcatca tgcctgtgtg tgccttccgc ttctcaggc ttacgctgaa gccggatctc 180
tccgacacgg tccgctacac ccagcacctc gag 213
```

<210> 1638

<211> 277

<212> DNA

<213> Mus musculus

<400> 1638

```
gaattcgcgg ccgcgtcgac acagaatgtt agcatcatca gtctggaagg tgaaaagaga 60
gatggtttgg aactgttttc ttttcttttg ctgtcccca tttcttctt gcctccctcc 120
tgctgcgcag ctgcctctaa ggcagcccc caccctcgca gtaccttgca acaggctctg 180
gagattgagc tgcgctcgc gaagcagttc ctctacactc gggggcctgc ccgaggagag 240
gaacacgttc actggctgtc gccatgacga cctcgag 277
```

<210> 1639

<211> 371

<212> DNA

<213> Mus musculus

<400> 1639

```
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctgc ctcgagctca 60
cccttcacga ctgcccagggt ccccgctctg gaaccacagc tgccaggcag tgtctttgac 120
cctattggcc acttcaccca gcccatcttg cactgcccgc agccggagct gcctcctcac 180
ctgccccagc cactgagca cagcactcca ccccatctca accagcatgg ctgtgggtctc 240
tctccagct ttgcaaaatg agctgcccc aagccatctc cggcccagta accgagctgc 300
tgctctgccc ccaaagccta cccgaccccc agctgtgtcc cgtgcctgg cccagcccc 360
cctatctcga g 371
```

<210> 1640

<211> 194
<212> DNA
<213> Homo sapiens

<400> 1640
gaattcgcgg ccgcgtcgac ggcattgaaa aaagtgcacat ctccacagta agccctgcta 60
cagagtctat gcgctactgc aaagccctac tgctaacaat ccacccttcc atccttgctt 120
ccatccgtcc ccatccaccc ttccaatcca tccatccact cattcatcca tccacccttc 180
catccatcct cgag 194

<210> 1641
<211> 539
<212> DNA
<213> Homo sapiens

<400> 1641
gaattcggcc aaagaggcct agtttctgta ctttttattg ggtaaaaatg gaattgaaca 60
gcaacctcaa cataagattt tttttctagt accctccac tgattaaaga agcaagtttg 120
aggtttcatc cttcaaaagg gggttccgag agagcacgt agggcttttc tcaaatagaa 180
aagccagatt ttgaaaaaat tttaaagata aaataggaca tttttgag atatatatat 240
atatatacac aaacacatct ccaggatatag agaaccatcc agatgttcac ttttgaaaat 300
atctaattgat gcaaagtttt attcttgaac ttggacactg atgccatcaa acaattaaca 360
aatatatatta agtactaaag gtgatttttt ttttaagac tttttcaa atgtcaaatga 420
tttaatgcag atgaacatat ttctatttta agtaacggga atctgtaaga atgtttgctt 480
gagatatggt taactttttt cttttgttgg ttttgactta gatggacacc atactcgag 539

<210> 1642
<211> 193
<212> DNA
<213> Homo sapiens

<400> 1642
cctaaaccgt cgattgaatt ctgacactgc ctgcagcata tatacccctt tttctcagtc 60
ttaagcatca aacaatttct gcctctttct ttttaattct cccagagga tggttaatgc 120
atcacaattt aacttgtcta ttcagggtatt aatagtcaag ggatgcatct gtttgcttat 180
agtaccactc gag 193

<210> 1643
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1643
gaattcgcgg ccgcgtcgac ggatctactg ccttcacacg cgctcctttt aacttaaaac 60
actgctttca ccttaaaaga gaaacaagag gaacacacgg acgccagaaa gagaatgacg 120
gaaacggagg tgatcatctc agcagggtcc gaatcctcag atggaaccac aggccaccag 180
gccaaactcg ag 192

<210> 1644
<211> 958
<212> DNA
<213> Homo sapiens

<400> 1644
gaattcggcc aaagaggcct actgctcttc ataactgagt tgagttagttt ttcttgaatg 60
attacttttc aatttggtat acactgtgc ccactttcct gagttctgat atagtggttt 120
gacatgtttg tctagttttt tcattgaatt ttggagagac gctctgttga gctcactcta 180
ctattccagc agttccctct ttaccctttt actttatacc tttcttttag gttctcatat 240
ttttaagaga aatgggtcta ttcattattat gttttcttc acattattat gcttttactc 300
ttaatttata ggtgctcaga aacacttttt atgcagtgtt taaatgtttt tagaagcttc 360

```

ttaatcaaat atttccaggc cccttgaaca tagtagttgt tgagatattc attaaatgct 420
catttagtag agtttttaaag gtttatttaa tatctgcttt gggccaagta ctataacccat 480
agtgtgactt tagagcatgg actttgaagt tgaacgtgtg taagaatcct ctctctgtta 540
atggacatgt gaccttgaac aagttactta attcttctct tttgaatgtc ttcggccata 600
aaataaaact tcagaggagt aaatgtgact taaggcataa tatttgccct acattaagta 660
ttcagtaagt gataacttgt gagaatgtgt gagaagaatg tataataata gtttctactt 720
aattattaag gtaagtgaac gtattttctt tctttttctt ttaagagacg gggctcttgc 780
atgttgccca ggcttgtctt gaactcttgg cctcaagcag tgctcctgag tagctgggat 840
tacaacatg agccactgca cctggctcat tttaaagatg gtaaaactca gattagagaa 900
ggaaagtaat ttggcatgat cgtactgtta atgagttcca gaaagaggag tactcgag 958

```

<210> 1645

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1645

```

gaattcgagg ccgcgtcgac catagctaga acctggcagt gccagaattc aagccgaagc 60
taattgggctt tgaaggcaga gttcatctgc cagccttggt gcttcttttt cttccctctg 120
ctgagaagca aggaacagag cagtgtactgt atcccctggc tacacattag aattacctgc 180
aattcttttt ttttttgaga cggagtctcg ctctgtaacc cctcactcga g 231

```

<210> 1646

<211> 450

<212> DNA

<213> Homo sapiens

<400> 1646

```

gaattcgagg aaagaggcct agcctgctga cgactttttt aaacttttat ttttaaatat 60
tttttagaat atcactaaaa tactgttgca atcattttta gtccaagtt ttaaaaccga 120
aaatcctata ttctctgaca gtaaatctcg gtttctagaa agtagctcaa aaacaaatgc 180
gtcatcctct actttggaag gttccaaatg ataacagatt caaatctacc aagacccttc 240
atcccaacca aatgtctcta aataccaaga tctcagatta ccttggaatt tttttttttt 300
tttttttttt tttttttttt tttttttttt ggcttcaaat caagttaat aaataaaaca 360
gcaaaggggg gttcaaggca gttatcactt cacagtgtgg tccttggtgg ggtgagggat 420
ggtcgagtc aactcggaaa ggggctcgag 450

```

<210> 1647

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1647

```

gaattcgagg ccgcgtcgac ctggatttgt actctgtaga taccgcaaac attccttctt 60
tatttgtagt tctgtcttat gaaggcattt gagtttgtga cctctgctgt gctactcgag 120

```

<210> 1648

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1648

```

gaattcgagg aaagaggcgg gaatttgagg ctgaagcca agaattcggc acgagggtca 60
ggctctcctgg ggatgggtgg ccacatgatg tattcacaag tcttccaagc gactgtcaac 120
ttgggtccag aagactggag accacatggt tgggaattat gctgggctt ctacatggcc 180
tggtctctct tcacctgctg catggcgtcg gctgtcacca ccttcaacac gtacaccagg 240
atgggtgctg agttcaagt caagcatagt aagagcttca aggaaaaccc gaactgccta 300
ccacatcacc atcagtgttt cctcggcgg ctgtcaagt cagccccac cgtgggtcct 360
ttgaccagct accacccttc ctctcgag 388

```

<210> 1649

<211> 334

<212> DNA

<213> Homo sapiens

<400> 1649

```
gaattcggcc aaagaggccg gaatttggcc ctccaagcca agaattcggc acgagggaaa 60
aaaaagccaa atttcttggt gctacaggat ataacaacaa tgaaaaggat ctcgtatttt 120
aaaaaaatat gtaattttta taaaaagaaa acttggtttt cattcaaaact tgtcattttt 180
actttggtaa ctttttcata ggtcctaaaa gaaaactggt ttgagaaact actgtaagta 240
ccttttccac atccctttgc cttctcctct ttccaaattc tttctacaaa aataacactt 300
gatgctggaa aaacccatgc tacgtctcct cgag 334
```

<210> 1650

<211> 513

<212> DNA

<213> Homo sapiens

<400> 1650

```
gaattcggcc aaagaggccg gaatttggcc ctccaagcca agaattcggc acgagggaaa 60
acgtgaagct gaagcaaaaa tgatggttgc taacaaacca gataaaatac agcaagctaa 120
aaatgaaata agagaggaaa ttgaagagtg ggaggcgaaa gtgcaacaag gggaaagaga 180
ttttgaacag atatctaaaa cgattcgaaa agaagtggga agatttgaga aagaacgagt 240
gaaggatttt aaaaccgtta tcataagta cttagaatca ctagtctaaa cacaacaaca 300
gctgataaaa tactgggaag cattcctacc tgaagccaaa gccattgcct agcaataaga 360
ttgttgccgt taagaagacc ttggatgttg ttccagttat gctggattcc acagtgaat 420
catttaaaac catctaaata aaccactata tattttatga attacatgtg gttttatata 480
cacacacaca cgacccaag cacaccactc gag 513
```

<210> 1651

<211> 394

<212> DNA

<213> Homo sapiens

<400> 1651

```
gaattcggcc aaagaggccg gaatttggcc ctccaagcca agaattcggc acgaggggga 60
agaccagact gagcgatttg gaatccacat cctaagtctg ccacaagctg catgcacaaa 120
gaccttaggc acatctcttc atttctctgt aacttggttt ctctactatg tgtgtattaa 180
aatatataat gtggatgata gtaaaactgaa caaagcctta atttctctcc aagctttgac 240
attgccaaag gcagttagga gacttcagga tcaagttagt gggacaagtt tttttctaat 300
actttcaaaa ggcccaagtg aagtgaggaa ggacacctca ctttctggct ctaaaagcat 360
ggtacatctc acaccaggat aaaagcacct cgag 394
```

<210> 1652

<211> 356

<212> DNA

<213> Homo sapiens

<400> 1652

```
gaattcggcc aaagaggccg gaatttggcc ctccaagcca agaattcggc acgaggggtt 60
ataccttccc tcccaggctc cttacettgg tcttttccct gttcatctcc caacatgctg 120
tgctccatag ctggttaggag aggggaaggca aaatctttct tagttttctt tgtcttggcc 180
attttgaatt catttagtta ctgggcataa cttactgctt tttacaaaag aaacaaacat 240
tgtctgtaca ggtttcatgc tagagctaag gggagatgtg gccacactga cttccatttt 300
aagctttcta ctttcttttc ctccgaccgt cccctctcct caccctccacg ctcgag 356
```

<210> 1653

<211> 399

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (236)

<400> 1653

```

gcctgctgca gattaaaaca ctgaactgac aattaacagc ccaatatcta caatcaacca 60
acaagtcatt attaccctca ctgtcaaccc aacgcaaccg ccatctcgaa gccagattcg 120
gcacgagggg gcacgcgggt gattgccaag gagaattacc ccctctacat tcgcagcacc 180
cctacggaga acgagctgaa gtccactac atgggtgcaca catctctgga cgtggnggat 240
gagaagatct ccgcaatggg gaaggccctg gtcgaccaga gggagctgta cctgggcctg 300
ctctacccca cggaggacta caaggtatac ggctacgtca ccaattccaa ggtgaagttt 360
gtcatggtgg tagattcctc caaacacagc ccgctcgag 399

```

<210> 1654

<211> 333

<212> DNA

<213> Homo sapiens

<400> 1654

```

gaattcggcc aaagaggccg gaatttggcc ctggaagcca agaattcggc acgggggcta 60
actggctgag aatcaagaaa taaattattht tgtgaaattg aattctgtta gtttctcctt 120
aatctgtatt tgtgtcagat tttcaattgt aaataacttt agcaatttgg agagtctatt 180
attgcctatc aaattgtgta tctgcacagt ttttggaag ctagagaatg tgactttaca 240
agcttatttt ggtgcttggg gacaggtcgt gaaaaacgag tcatgtgact gagactcctc 300
aaaagtccac cactaattcc ttgttcactc gag 333

```

<210> 1655

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1655

```

gaattcggcc agccaaagag gccggaattt ggccctcgaa gccagaatt cggcagcagg 60
cataggattt gttcacatag tgttatgcat gatcttcgta aggttaagaa gccgtggtgg 120
tgcaccatga catccaaccc gtatatataa agataaatat atatatatat gtatgtaaat 180
tatagcactg agggccctgc tgccctgctg gaccaagcaa aactaagcct tttggtttgg 240
gtattatggt tcgttttgggt atttgtttgt ttttgtggct tgtcttatgt cgtggcagac 300
caagtactct cgag 314

```

<210> 1656

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1656

```

gaattcggcg ccgcgtcgac accgctcact cgggggaaat ggattcttta ccacggctga 60
ccagcgtttt gactttgctg ttctctggct tgtggcattt aggattaaca gcgacaaact 120
acaactgtga tgatccacta gcatccctcg ag 152

```

<210> 1657

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1657

```

gaattcggcg ccgcgtcgac cctaaaccgt cgattgaatt ctatcactat ctgcccgtgc 60
ccatggatga gatggggggg aagcaaggat ggggcagcca ccggcagtggt ctggggggcg 120
cgatcttggg ggtctgttgc ggggttacct tagtcactct gacaactctac ttcgcccgtca 180
cagcgaacag cgtggcctgt agagacgggt tgcgagcgca ggctgagtg cgggaacacca 240
cgccactcga g 251

```

<210> 1658

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1658

```

gaattcgcgg ccgcgtcgac ataatatattt acctagggtt taagttattt taatcagtta 60
gacaaatttag ctagacaaaa agtatgagca agaagaaagt ctgtttgcag attgccgtta 120
tctgggcatt catgcttttg gcatttcac tcactatcca ttccctagcg gaaaatgggc 180
aagaagtact atgttcattt aaaaaccatc ttgaaattgt actcgag 227

```

<210> 1659

<211> 532

<212> DNA

<213> Homo sapiens

<400> 1659

```

gaattcgcgg ccgcgtcgac ctgcactgtt tcagtttttc actcttagca ggaatttga 60
gatgactttt gatgacaaga tgaagcctgc gaatgacgag cctgatcaga agtcattgtg 120
caagaagcct aaaggctctgc atttgctttc tcccccatgg tggttccctg ctgctatgac 180
tctggtcac cctgcctgg tgtgtcagt gaccttatt gtacagtggg cacaattacg 240
ccaggtatct gacctcttaa aacaatcca agcgaacctt actcagcagg atcgtatcct 300
ggaagggcag atgttagccc agcagaaggc agaaaacact tcacaggaat caaagaagga 360
actgaaagga aagatagaca cctcaccca gaagctgaac gagaaatcca aagagcagga 420
ggagcttcta cagaagaatc agaacctcca agaagccctg caaagagctg caaactcttc 480
agaggagtcc cagagagaac tcaagggaaa gatagacacc cccaccctcg ag 532

```

<210> 1660

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1660

```

gaattcgcgg ccgcgtcgac aggccagat gaataaacta attaaaatat ttaaagccca 60
tctgtttcat taacagatgc attttaaaac aaatatagtt acttttattg gttacctaaa 120
tctaaaatta ttttgatcaa tgatactaag gaaaatgctc gag 163

```

<210> 1661

<211> 423

<212> DNA

<213> Homo sapiens

<400> 1661

```

gaattcgcgg ccgcgtcgac cgagcgtgtt acttttactt tgttctgttt taaaatgctg 60
actcttctaa gaccctgca tttccacatg gaattaacca tcagtttgc aaatttttta 120
aaatcttggt aagaatttga ttgggaaggt cttgaggaag ctatagataa gtctgagtag 180
aactgacatc tttgtaacaa gtcttctaat ctatgaatgc ggtatatatc ttcatatttg 240
taggtctttt taagttccaa taattttctg taatttggag tacagatttt acacatatct 300
ggttaaactt atacctgagt attttacaat tttactctat tatgcatggt acttgccat 360
ttcatcttta tttgtattat tattttttta agatggagtt ttgctctgtc acccacgctc 420
gag 423

```

<210> 1662

<211> 138

<212> DNA

<213> Homo sapiens

<400> 1662

```

gaattcgcgg gccgcgtcga cgagttgggt tgtatttctt tcatatccaa tttcccgttt 60
tcctctgct ctgacacctg cctctccttt tctccgtgct caggttcttt catgcttagt 120

```

ttcctcagat ggctcgag

138

<210> 1663

<211> 307

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<400> 1663

```

gaattcgcg cgcgctcgac cacctactct acganacaca aagttctatg gtctcgaaga 60
agcccggtgcc tgtttaaaac tgatcctaac taaaaacaga cttgagtggg tatgagaatg 120
ttggttagtg gcagaagagt caaaaaatgg cagttaatta ttcagttatt tgctacttgt 180
tttttagcga gcctcatggt tttttgggaa ccaatcgata atcacattgt gagccatatg 240
aagtcataatt tcttacagat acctcataaa tagctatgac tttgtgaatg ataccctggc 300
tctcgag 307

```

<210> 1664

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1664

```

gaattcgcg cgcgctcgac cgagttctta gcattttcac agtggttaaag caaaaatc 60
aggttcgagg cataaggtag aatgagacca ctccggaact tccgatgcatt ttgttttctg 120
tctccgtgcc tccggcttcc caaagagatc caggtctttg cgtttccagg gcgtggggac 180
cccggcccc tatgccgcca cgccgccaca cgcctcacc cctgggtcga g 231

```

<210> 1665

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1665

```

gaattcgcg cgcgctcgac cataaagaaa ggacacatat ttcaggtgat ggatattcca 60
agtacactga tttgattttt acaaattaca taaatgtatt aaattatcat aaaaaataaga 120
aacaataaaca taaactgaga aaaaaattta aatgacctac aacctaat ttaatgcctg 180
catggtattc ttgtgtatta atgtgttatt ttacttaac caatttctta ctattgaagg 240
cctgtttact gtttttact cttctaaacc acaatgcaat aaaaacctcg ag 292

```

<210> 1666

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1666

```

gaattcgcg cgcgctcgac gtgtgtataa aaggggtctaa ttctataaat tatttgtaaa 60
ataagttaat atgttatgtg tgtatgtgtg tgtgtgtgcg tgtgcgctcg ag 112

```

<210> 1667

<211> 501

<212> DNA

<213> Homo sapiens

<400> 1667

```

gaattcgcg cgcgctcgac aaatatttat caatactgat cagactttta agaaattact 60
ttgtaaacct gctgactacc tgtatgtatt gtatatatat tatatattaa atatataata 120
tattgagatt ataaaagatg aaaatattga atcettataa tattttaagt tgcagaatgt 180

```



```

atgttaaaaa gtgacttgaa tgagatgtat ttgtatctag aaattttatt tctttttgga 240
atgagattaa aatacatttt gaaagtccag cagagtaagc aatttatttg tgttgccat 300
gtgtgagtgt atttaaagtt ttatggacgc ttaatggttt ctcccaaatt aaaattcttt 360
ttctgtcatt tccaaaaatc agaatctttc cctctcaaat caggtctaca ggtatcatgt 420
atgcctttgt taaataggac ttgtttttaa tttgtagtct ctagaattag aaatattttt 480
gttttactgg ccaatctcga g 501

```

<210> 1668
 <211> 182
 <212> DNA
 <213> Homo sapiens

```

<400> 1668
gaattcgagg ccgcgtcgac ctgttgccctg tataccttctg ttttctgggt tttgttggtt 60
ttctaattgt atttttggtt tatacgtcct gtgatattta tgcttttaaag aggttctgtt 120
ttgatattgt tccaggattt gtttcaagat ttagagttcc ttttagcatt cttgcaactg 180
ag 182

```

<210> 1669
 <211> 295
 <212> DNA
 <213> Homo sapiens

```

<400> 1669
gaattcgagg ccgcgtcgac agttcaccat aagctagaag ttgtgtcaaa ttgagtcaag 60
attgtggctt tctcagctct ctgateccat tttgagagag acatagctgg gatagtattt 120
tgcttataat aggagtacaa tacatatctt ttgaatttat gcttaaccct tgagcacatt 180
ttttttaatg gcttgatca cgtttctctg ttttttgaca tgtttgatg ttgcccattc 240
caattacttc ctactttcag cctatgctga agttcctcct ctggcaactc tcgag 295

```

<210> 1670
 <211> 156
 <212> DNA
 <213> Homo sapiens

```

<400> 1670
gaattcgagg ccgcgtcgac gtatattaaa aaatatttaa catttaacaa agtcaacact 60
gagacaagta cttactaaaa tacaaagttt ttccattgaa aaaatactgt aattaaactt 120
gttaaaaata tgggtatata ttttactctt ttacaa 156

```

<210> 1671
 <211> 298
 <212> DNA
 <213> Homo sapiens

```

<400> 1671
gaagaagtat cggatagaaa ttaagcctat gcatccaaat aactcacatc acacagtggc 60
ttctttggat gaattaaaag tatctatagg gaatataaca ctctccccag caatatctag 120
acacagtcca gtacagatga atcggaattt gtctaattgag gagttaacaa aatcaaagcc 180
atctgtctca cccaatgaaa aagggaaccag tgatttactt gcttgggacc ccctatttgg 240
accatctctt gattcatctt cttcatcttc actaacttca tcatcatcag ccctcgag 298

```

<210> 1672
 <211> 270
 <212> DNA
 <213> Homo sapiens

```

<400> 1672
gaattcgagg ccgcgtcgac gttcctttta gtcagtactc ttaaagctct tctggtcaca 60
gccctagcct tgtgtcatgg cttcaatctg gacactgaac atcccatgac cttccaagag 120

```

aatgcaaaag gctttggaca gagtgtggtc cagcttggcg gaaccagtgt ggttgttgca 180
 gccccccagg aggcaaaaggc tgtaaacag acagggtgccc tctaccagtg tgactacagc 240
 acaagccggg gtcacccccc cccctcgag 270

<210> 1673

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1673

gaattcgcgg ccgcgtcgac agcccacatt attattaata tatagaggga ccataaatta 60
 ttattatttt tgccctgtga tataccatag aatacagtaa gatatatgag tcaaagtcac 120
 ccactcctct gataaatcaa tttcattctg ctatttcatt ctcttccaat tttgctgtgt 180
 aaattttcaa taacaaatct ttattgttga ttatacagta tgtatactac tatcttaatg 240
 actaggcttc tcgag 255

<210> 1674

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1674

gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgaaactttt cccattaaat 60
 tcgctattta tatgagccag agtgattgat ctttcttctc tgcataattta accaaatcac 120
 tcctctggtt aaaatccttc ctccagtatt aatatagcat ataaaaccat gcaaatctgg 180
 aagcatgcta tctcttcaat cttattttca gccactcccc tcgag 225

<210> 1675

<211> 113

<212> DNA

<213> Homo sapiens

<400> 1675

gaattcgcgg ccgcgtcgac attttaaaaa ctgatcaatt tttcatgttt acataaagta 60
 taataaacatc tatcagtatg ctacatacca tgtttaaaac agcgatcctc gag 113

<210> 1676

<211> 159

<212> DNA

<213> Homo sapiens

<400> 1676

gaattcgcgg ccgcgtcgac ggcacccata aaatagtaaa cataagacct ttttttaatg 60
 tgtgtgagat ggagtttggc tcttgttgcc caggctggag tgcagtggct attcataggc 120
 atgatcatgt atttcagacc tggaagtcct gggctcgag 159

<210> 1677

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1677

gaattcgcgg ccgcgtcgac cgaagaaata atacagaaac ccatecaaaa agcaaaaaca 60
 ggctcattta gattccttcc aattatgtgt tttctggcgc ttcttttccct tttcgttgc 120
 gagtcctcg ag 132

<210> 1678

<211> 136

<212> DNA

<213> Homo sapiens

<400> 1678

gaattcgcgg ccgcgtcgac cccctcaaaa aatttactag aaacacatac gtttcctggg 60
 tcttattact atgaaactaa attttgtcta ccttcttgat cgtttcatct caattttttt 120
 ccttctcaca ctcgag 136

<210> 1679

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1679

gaattcgcgg ccgcgtcgac gcctgtaatc ccagcaccag gaatttgaga ccagcctggc 60
 caacctgggtg aaaccctgtc tctactaaaa atacaaaatt agccaagtgt ggtagtggtg 120
 gcctatagtc ccagctactt aggaggctga ggcaggagaa tcgcttgaaac ccaggaggca 180
 gaggtgcag tgacacaaga tcatgccact gcactccagc ctgggtgaca gagcgagact 240
 ctgtctcaaa aaaaaatttt ttttttaaaa aaaggacgtg agtaacatgc cttagagggtt 300
 gggaggaggg aaaggctggt tcctactggg gaaatcagaa aagggttcaa ggaggaggta 360
 acatctgagc tgggcttttg cttgcagaat gcggacccag aatgattgga gagcaggaag 420
 agcaatccac atagaagaag cacagagcct cgag 454

<210> 1680

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1680

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctattact 60
 cctaacccat ctacaaggag aaaaaaacca aatcattaat atgacttgga agatactttt 120
 tcactctgct ctggccacat tgcgtttctc atccctcccc attccttcac aggtacttta 180
 ctctgacatg cagaacaagg agcagctccc tgaacacatc atgctctctc tcgag 235

<210> 1681

<211> 528

<212> DNA

<213> Homo sapiens

<400> 1681

gaattcgcgg ccgcgtcgac tgctgcagaa ggggtgccact gatgaagtga gcgcaaacag 60
 aagcagctct tctctattaa cagaattaaa cactacaaag tgtttctctg gaggggtgca 120
 tttcactctt gctttcttat tttttgtggt ttgacctcag ctatcaccac tgggaagccc 180
 aggaaaagct gctctgaata ttcattcact ggacaggtaa agactgggac ttcagaattt 240
 tgaagacgat cttagactct tacacctgtg gtcttgctag atgtgttgat tcatgactct 300
 ctcaatctgt accccaaaca ggaagggcct gggaagtaaa gtatgtaaac gtgtgttccc 360
 ttaagggttag aattatgtat atgtgttata acctcttatt tgtagaaaat ggagaggcat 420
 actggttaact aaggagctac aaatacagac aaggaaatga catatacctt aattttaaat 480
 ctagattgag aaaaaggggtg aaaagaatgt gaaaatatta aactcgag 528

<210> 1682

<211> 364

<212> DNA

<213> Homo sapiens

<400> 1682

gaattcgcgg ccgcgtcgac ttagcatcta tcaagggagc accatcatgt acggggcgct 60
 gctgctgttt gagtcggagt tcgtgcacat cgtggccatc tccttcacct cgctgacct 120
 caccgagctg ctcatggttg cgctgacct ccagacctgg cactggctca tgacagtggc 180
 ggagctgctc agcctggcct gctacatcgc ctccctgggtg ttcttacacg agttcatcga 240
 tgtgtacttc atcgccacct tgcattctt gtggaagtc tccgtcatca ctctggtcag 300
 ctgcctcccc ctctatgtcc tcaagtacct gcgaagacgg ttctctcccc ccagactact 360
 cgag 364

<210> 1683
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1683
gaattcgcgg ccgcgtcgac ccaaaccata tcacatagtc tccctctttt tatgtttttg 60
ttattttgtgt tttgttttat gtttacccaa ataattcattt attttttatt aacatttatg 120
ggttatgttt accatataac ccatttttat accttactgt cctatcccca tcccctcgag 180

<210> 1684
<211> 285
<212> DNA
<213> Homo sapiens

<400> 1684
gaattcgcgg ccgcgtcgac cgtgagactt aagtccaaac ttgcgtttca gcagggtgaa 60
ctgctccttg acgtagtggg aaaactcgtc ctctatctc atccgtcgtt agaggatctg 120
cacagcctca ggagagggga cagtcttctt caccgtcaca gtcattgttc caagcttcct 180
gtgctctggg tctttgtaga tactgagcac gcccttgaag taatgaggta aaaatctttc 240
cagtaacagc agcacatctt ccaactcttc aagaatcccc tcgag 285

<210> 1685
<211> 283
<212> DNA
<213> Homo sapiens

<400> 1685
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttttttctc tttgcatttg 60
agtctcagaa atttctattg acatagcttc aaactcagag attattctct tggctgtgtc 120
cagtctactt atgagcctat caaaagcatt cttcatttct gttactgtgt tttttttatc 180
tctagcatgt cttttttatg atttcttagt ttccatccct cttcttcaag ggcagacaat 240
tcctactgt ctttgcattg tgtccacctc ccccagctc gag 283

<210> 1686
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1686
gaattcgcgg ccgcgtcgac ctgggtggtg gggtcaggaa ggggaaagag gaagtacaaa 60
taagcaacct ggacattttt attgtttttc tcttatctgt tagtctactt gaagagctat 120
ccttgaaagt gagtgtttta gatctatgaa actgggcagc tatcatagat ctaaaacact 180
cctcgag 187

<210> 1687
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1687
gaattcgcgg ccgcgtcgac aaaactcaca gataacaaca gattttactg cagtcattgc 60
agagctcgac gggattctct aaaaaagata gaaatctgga agttaccacc tgtgttttta 120
gtgcatctga aacgtttttc ctacgatggc aggtggaaac aaaaattaca gacatctgtg 180
gacttcccgt tagaaaaatct tgacttgtca cagtatgtta ttggtccaaa gaacaatttg 240
aagaaatata atttgttttc tgtttcaaat cactacggtg ggctggatgg aggccacaag 300
ctcgag 306

<210> 1688
<211> 376

<212> DNA

<213> Homo sapiens

<400> 1688

```

gaattcgcgg cgcgctcgac caaagcttcc aatagacctt tctctccgc tatttttaac 60
attgatttta tcgagggccag tctctttagg agtcaagagc ttgtagacac tgteccctgtt 120
tcagttggtc accgaaaata ctcagtcctcc tcaacacccc ctcttcctca tttagccaga 180
ttctgcttat tttaaacatt caacttccat cctctcttcc cgctgactac ccaccacact 240
ctgttcattc gcttcaactc tcaattgcta ttgtactttt atgetgttcc acacgattta 300
ccagttactc ataatatgtc ttgtattatt aatggatatt ttacacattc tagcttgcat 360
cccccaaagc ctcgag                                     376

```

<210> 1689

<211> 359

<212> DNA

<213> Homo sapiens

<400> 1689

```

gaattcgcgg cgcgctcgac gacttgggac aagaagaaaa caagacatct tcacaaggaa 60
aaccaagtac taaaaaaagt atcctcccaa ctctgaagag atagaacaca aacatggccg 120
acagtggact tagggaacct caagaggact ctcaaaagga tttggaaaat gatccatcag 180
taaattctca ggcgcaggag accacaatca tagcaagtaa tgctgaagaa gctgagatcc 240
tacactctgc ctgtgtctct agcaaagacc accaagaggt agagacagaa ggtccagaaa 300
gtgcagatac aggtgataaa tcagaaagtc cagatgaagc aaatgtgggg gatctcgag 359

```

<210> 1690

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1690

```

gaattcgcgg cgcgctcgac tcgattgaat tctagacctg cctcgagaaa tgccgatgga 60
aaaccagaga gaggcccctg cacataagaa gcccagcgga gtgaccagaa gagaaacagc 120
gggactcgag                                     130

```

<210> 1691

<211> 656

<212> DNA

<213> Homo sapiens

<400> 1691

```

gaattcgcgg cgcgctcgac tgtattagtc catttttatg ctgctgataa ggacataact 60
gaaactgggt aattttttaa gaaaaagagg tttaatggac tcacagtccc acatggctgg 120
ggaggcctca caatcacacc agaaggcaaa agccatgtct tacatggagg cagataagag 180
agaatgagaa ccaagcaaaa ggggtttcct cttataaaac catcagatct cgtgagactt 240
actcactacc atgagaatgg tatggggcaa cgcgcccat gattcaatca tctccactg 300
agtcctatccc acaacacatg ggaactatgg gaactacaat tcaagatgag atttcaatgg 360
ggacacagtc aaaccatata aacacatttt cttaattatc agtcaaaaaa caaatcataa 420
taaacatata aatatttgggt gctaaatgat aaatatcaca aaagttgtgt aatggagcaa 480
aagttgtata tagagaggtt tataccctaa aatgtctatg ttagaaaaga aggttgaaaa 540
tttaaaacat aggtattaga tacacagtag gaaaagagta aacccaaaga acatggagga 600
aaaagataat ataggaaagg ggagaaatca atgaagtaga aaaccatctc cctata 656

```

<210> 1692

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1692

```

gaattcgcgg cgcgctcgac attaaagaat atcagaaaag tatatggaag gtgtatgtgg 60

```

tatcgtttac gggtattaaa accccagcca aatattattc ctacagtaaa gaaaatagtt 120
 ctgcttgac gatgggcatt gttcttattc cttgcatata aagtttccaa aacagaccga 180
 gaataccaag aatacaatcc ttatgaagta ttaaatttgg atcctggagc caatctcgag 240

<210> 1693

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1693

gaattcgcgg ccgcgtcgac catactttta tggttttgta tttcgcattt aaatgtttga 60
 cacttttgaa atgtttccaa atggctatgc agttattcca acatcattta ctgaactgtc 120
 ctataatttg gggtatcttc tttatcatat tccgaattac catagtagtt ggacctattt 180
 ctggattttc tattttggtt catgggcagc gctcgag 217

<210> 1694

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1694

gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgagggg gtaatgacac 60
 agttttttaa agaggagaaa taatagatac tatagaggag aagggaaaga aaatgaaaga 120
 gaggaatg tggaagagag aaatagagag aaaaatttct taaaaatcag aggaaaaaat 180
 gggggcttgc tataaggaaa tagattttat gagaataact ttaaaaaata atatagataa 240
 taataataat aaataccttt aaaggcagc taaaaaaatg cattctctct ccattaccct 300
 actc 304

<210> 1695

<211> 396

<212> DNA

<213> Homo sapiens

<400> 1695

gaattcgcgg ccgcgtcgac aataaaca aaaccaaagt gataaatgga tagttaaggg 60
 aggtttgtctg aacagggatt ataattagtt tacatacata ctccttaa acagataaatac 120
 attacacctt tcaagaata aatgaaaaat agagagacat acctgggtcc aaaacaaggc 180
 tgtatcttct gccactgtaa taaaatagat gcaattgagg ttcataaata aaagaataaa 240
 tacttaaacg tgaaagtgta ctaaatgcgg ggaagaaaga ttgcaaataa atacatgggc 300
 caaagatggt tggtttgcct atggagtgtt aattaaaaaa attaataagg aaaacaaata 360
 cccaaaataa ggaagactga caaatgtgag ctcgag 396

<210> 1696

<211> 215

<212> DNA

<213> Homo sapiens

<400> 1696

gaattcgcgg ccgcgtcgac ggactaatcc ccttcgttgc tccaccactg gtcagtctga 60
 tgacaaaaac ttatattccc atattagctt ttactcagat ggcttatgga gccagtgtcc 120
 tatctttctt ggggtgggac agatggggtt ttgctctacc agaaggtagt ccagccaaac 180
 cagactacct taatttagct agcagcgagc tcgag 215

<210> 1697

<211> 157

<212> DNA

<213> Homo sapiens

<400> 1697

gaattcgcgg ccgcgtcgac aggacaagcc cccaacgctt actaaattct gtgaaagcat 60

gtggagattc acatatttatt tatgtatatatt ctgctatgga attagatttc tctggctcgtc 120
accttggttc tgggacatcc gacagtgcag gctcgag 157

<210> 1698
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1698
gaattcgcgg ccgcgtcgac taaacattga tgaacttgat tatatttttg tgcagagctg 60
aactgcttta tcagatggga agttttgtct catgttccact aaatccaagt aagtttaccc 120
tagaattatt aaaaacagag agaagttcta gtttcatgtc tttcacgctt ctgaacaaca 180
actttttgtg ctatctgttc tctgatttac acccaccaga actcgag 227

<210> 1699
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1699
gaattcgcgg ccgcgtcgac ggggaataaa ccaagtgact gtgtacccta caaagatgaa 60
gaactttatg atcttccagc tccttggtact cctttgtccc ttagttgcct tcagctcagt 120
actccagaaa atagagagag cgctcgag 148

<210> 1700
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1700
gaattcgcgg ccgcgtcgac gttgattttt attcttccctt ctgccttcta tatcaagttg 60
gtgaagaaag aacctatgaa atctgtacaa aagattgggg ctttgttctt cctgttaagt 120
ggtgtactgg tgatgaccgg aagcatggcc ttgattgttt tggattgggt acacaagcac 180
ctcgag 186

<210> 1701
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1701
gaattcgcgg ccgcgtcgac caaaaggcgg tgtgaagtgt agtgtcatat aaaattaaga 60
aatgcagaga ttattttctg tggcactttt tttcccattt tcttccatta gatccctagg 120
cagaattaaa ttgttttagta catccttaat tctctgtaaa caccactag cacctcctga 180
cctaaatctc ccagctcatc tcgag 205

<210> 1702
<211> 157
<212> DNA
<213> Homo sapiens

<400> 1702
gaattcgcgg ccgcgtcgac acatcaccct ctctgtggt taaattgaga tggtaggact 60
ggctgtcttc tatattattg ctgcaccttt cctcaccagg ggtgcacaca aaactgggag 120
tgaagatgga atgagaagaa cagagaaaca actcgag 157

<210> 1703
<211> 443
<212> DNA
<213> Homo sapiens

<400> 1703

```

gagcatggtg gtgagcaggg acggtgcacc ggacggcggg atcgagcaaa tgggtctggc 60
catggagaca cggagggtcc tacgctcggg cggggggcag ctctcggggc tgctgggtata 120
acctgcgcta cttcttcctc ttcgtctccc tcatccaatt cctcatcatc ctggggctcg 180
tgctcttcat ggtctatggc aacgtgcacg tgagcacaga gtccaacctg caggccaccg 240
agcgcgcgagc cgagggccta tacagtcagc tcctagggct cacggcctec cagtccaact 300
tgaccaagga gctcaacttc accaccgcg ccaaggatgc catcatgcag atgtggctga 360
atgctcgccg cgacctggac cgcataatg ccagcttcg ccagtgccag ggtgaccggg 420
tcctctacgc gaacaatctc gag                                     443

```

<210> 1704

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1704

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gaattcgcgg ccgcgtcgac catgtggcct tcttcccttt gtattatattt cctttcgtgt 60
gtgatgaaga gcaagatgag acaggcctta ggatttgcca aggaagccag agagagccct 120
gacacccaag cccttttgac ctgtgcagag aaagaggaag aaaacctcga g          171

```

<210> 1705

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1705

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gaattcgcgg ccgcgtcgac ctcaaagaac acagtagcac ctaaactctgt tttcaattgg 60
gcttaaaaat tgacatgcaa tctcttaagt tttttgttca gctacttcac actgagtacc 120
tcaaactctgc tctggagtcg attatgccac ctgtgtgtca ggatgcacct gaaagcccc 180
agctcgag                                     188

```

<210> 1706

<211> 317

<212> DNA

<213> Homo sapiens

<400> 1706

```

gaattcgcgg ccgcgtcgac cttgaagtca ttatcatctt gctgctcatc tttctccgga 60
agagaattct catcgcgatt gcactcatca aagaagccag cagggtctgt ggatacgtca 120
tgtgctcctt gctctacca ctggtcacct tcttcttctg gtgcctctgc atcgctact 180
gggccagcac tgctgtcttc ctgtccactt ccaacgaagc ggtctataag atctttgatg 240
acagcccctg cccatttact gcgaaaacct gcaaccaga gaccttcccc tcttccaatg 300
agtcccgcac cctcgag                                     317

```

<210> 1707

<211> 169

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (45)

<220>

<221> unsure

<222> (123)

<220>

<221> unsure

<222> (126)

<220>

<221> unsure

<222> (150)

<400> 1707

gaattcgcgg ccgcgctcgac cccaaccaga tcggtgactc ctaanatctg agacaggaca 60
tcgtgactgc tggtagtaat atggtgggtgc attgtttttt ccacccaaac ttaacatagc 120
ctnttnatac atttttatga aaaatttcac tgtcagctgc ctgctcgag 169

<210> 1708

<211> 116

<212> DNA

<213> Homo sapiens

<400> 1708

gaattcgcgg ccgcgctcgac ggactgtacc gtcctttaca aatgattctt atcaagtata 60
taatgtgttc agtactaact cttttcaact tctcactgtc aaacgtcccc ctcgag 116

<210> 1709

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1709

gaattcgcgg ccgcgctcgac tatgcatctc cctacaatta cctgctggaa tteccctggg 60
ttacctccca tcttccttat gttcctttac tctttacctc caaggcccgga tcaccacaac 120
caaacaaacg gcattcgccc tcaccacggc ctcgag 156

<210> 1710

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1710

gaattcgcgg ccgcgctcgac ctaaagaatt agatgaagtc aggagcatat tgtgaattta 60
gttatatactg gcacttggct tatgttcttt tcttcacctc aacctccttc aaatcttctt 120
tcttctccctt tgggaccatc atggatacca cctctgctct ggaaccttac cttctgttcc 180
agctgagtgt ggtctcacct tcttttgaac cccttgaact cgag 224

<210> 1711

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1711

gaattcgcgg ccgcgctcgac aggaatcgct ccagagggca aaaccgtcca actaacgtta 60
aggaaaacac aatcaaattt gagggtgact ttgatttcga gagtgcaaat gccagtttca 120
accgagagga gcttgacaaa gaatttaaga agaaactgaa ttttaagat gacaaggctg 180
agtagatggc tcgag 195

<210> 1712

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1712

gaattcgcgg ccgcgctcgac acattataaa acagggggaa agcagactga ccctcttttt 60
aaaagtttac cccctcttca actgaaccct aaagacactg tcatgaactg tgttgaatgg 120
tggaatacag tatttctggt tgtggtgttg ttatttggtta catctgttcc atgtctaggt 180
gttgtgggtg tggctgttga aggaagtttg cagtcttgca gctttttatt cctgtgtctc 240

gag

243

<210> 1713

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1713

gaattcgcgg ccgcgtcgac agggggggag attaagggtcc agagagggca agctgcttgc 60
cccgtgggga gttgggtcat agtcaggatg aattgaggcc ttcagctggc aggggtgcag 120
ccctaggctg gcctggctga caggctggat gggcatggct agtgtctcga g 171

<210> 1714

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1714

gaattcgcgg ccgcgtcgac tgttggttact gtattacaat tagtattcta aaggcagaag 60
cagaagtagc tgcttttttag caatagaatt gtttcagtat tttgctgctg tttaatgcgc 120
atcttcagaa aacttcccag tggcttcaag gaatttgggg atctctctgg caacaaattg 180
tgaaacatga aatttctgct gactttaata tatgaaaccc tcgag 225

<210> 1715

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1715

gaattcgcgg ccgcgtcgac gtgaaaactc atatctgaaa gattataaat atactttata 60
tcaattttcc agagaactta aacttctaat aatattggta atattctcat ggttactatt 120
ttatattctt tcctgctttt tgtagctact ggtgtactcg ag 162

<210> 1716

<211> 172

<212> DNA

<213> Homo sapiens

<400> 1716

gaattcgcgg ccgcgtcgac atataggaaa ctaagcattg tttttttttt aacaaatcta 60
aaaaagcact atgaactaca ggtgtttgac tttcaaaaata ttttttgat tgtaaatatc 120
ttcacattgt gtgaatactg gaagctgcag atctttgcta ggagcactcg ag 172

<210> 1717

<211> 146

<212> DNA

<213> Homo sapiens

<400> 1717

gaattcgcgg ccgcgtcgac gtttttcaca tactttgtct agtttatccc ccaaaataac 60
ctagtaaagt tgtatctcct tttatagata gtaaaattat gtttcataat ggtagattaa 120
cttgacaaat cctacgcgta ctcgag 146

<210> 1718

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1718

gaattcgcgg ccgcgtcgac ctttttcttt ccttcccaat tccttgcaact ctaaccagtt 60

cttggatgca tcttcttctt tcccttcttctt cttgctgttt ccttccctgtg ttgttttgtt 120
gcccacatcc tgttttcacc cctgaactcg ag 152

<210> 1719
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1719
gaattcgcgg ccgcgctcgac ggtgcctctc tagcctgcac aaatgattga caagagatca 60
cccaaaggat ttttctctgaa ggtgtttttt ttctttattt tttttttttt tttttttttc 120
ttttttcttt ttttttttga catgacagtg tttgtattga ggaccttcca aggaagaggg 180
atgctgtagc agtggtgcct ggggtgcctgg cctccagtgt cccacctcct tcaccacccc 240
tcgag 245

<210> 1720
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1720
gaattcgcgg ccgcgctcgac ccactcacca ccaagaaata attagattct gtagacaaaa 60
tatatagtaa tttctctgta ccagagcagt tcttaaatat ctgtttgaat gttgtttctg 120
gtgggggttt ttctctttct gatttgtcat tttaaagggt tagacttagc cactgaggag 180
gtggccagcc gactcgag 198

<210> 1721
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1721
gaattcgcgg ccgcgctcgac gaaataatgc aatttctaatt tatctggatg ttcgttgaaa 60
atatattaga cattctccct gaggttaaaa acaaaaagta cgtgaccagt ctggtaagaa 120
gtattaatga agtagctaatt attacagctt cattttctac tagcacctat cataatgggtc 180
ttagtcattt cacacaaatc agaacactcg ag 212

<210> 1722
<211> 415
<212> DNA
<213> Homo sapiens

<400> 1722
gaattcgcgg ccgcgctcgac gctctatgca atcatgtatg tttatttttc tttgttgct 60
tgtgttttta ggtcatatg caagaagtga tacaacctg aaacctaggc cagtgtcatg 120
gagtttttca cctgtgtttt cttctactgg ctttacagtt tcaggcctta caattaagcc 180
cttgtctatt ttgaatggat ttttgtgtag ggacattccc tccacaaggg cttcctctgg 240
ccttgetgat gctcctccgt ctcccttggg tctctctcac tccacctct tcatgtggaa 300
gaaccttgg catcctctgt tggcctctct gtcttatcca gcccccatg gtgacctcac 360
acttgcctct ctgacgtggg tctctctccc aaacctctt ccaggctctc tcgag 415

<210> 1723
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1723
gaattcgcgg ccgcgctcgac gtttctatgc ttcattggtat ttcagggtgtt tcggaacatc 60
agtgggaagc agtccagcct gccagctatg agcaaagtcc ggcggctaca ctatgagggg 120
ctaattttta ggttcaagtt cctcatgctt atcaccttgg cctgcgctgc catgactgtc 180

atcttcttca tcgttagtca ggtaacggaa ggcattgga aatggggcgg catcacagtc 240
caagtgcctcg ag 252

<210> 1724
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1724
gaattcgcgg ccgcgtcgac ggggaatttg gcataatata ctttggctct ttgtgtctcc 60
tcactactct gaatcaggat ctttccaatt cgtatggatc gacagcagtc tcgtaaacct 120
tggtccattg cctcaccgct tctcattatg ctgacccac aatttccctt ctcaaatttc 180
actccttcat acttgtaccc tgttggagtg gtcaccatgc tactcgag 228

<210> 1725
<211> 257
<212> DNA
<213> Homo sapiens

<400> 1725
gaattcgcgg ccgcgtcgac gaccatcttc atccttccat gtaccctcca tttgtctccc 60
cacttcactc cctccctctt ttgttttctt tccccttctt cttttcttcc attcactatc 120
aggaagggca acctgtggag gccccagtc gcccacaccc gagccaacag ggactagagg 180
cagcagcggc tgcaacagtg agtgaattaa aaccaacaaa ccatcacatt tcatttaaag 240
agggtggcgca cctcgag 257

<210> 1726
<211> 183
<212> DNA
<213> Homo sapiens

<400> 1726
gaattcgcgg ccgcgtcgac gaaaacagtg atgttccact tgtttgttt tagcctactt 60
ccctttatgc tccccgtcc tgaaggatct cccgagttag cagggcctca tgtggatccc 120
caggcccggg gatctttgtc cagtgtccca gccccagcc caccctgcc caacactctc 180
gag 183

<210> 1727
<211> 137
<212> DNA
<213> Homo sapiens

<400> 1727
gaattcgcgg ccgcgtcgac acctgcccga gacgttatcc aaagatgaat gagaaagttc 60
tattcttttt catcatttgt gtgatcaggc tgcaaaggac atgtctcttc ctgatgaaa 120
ctgatgtctc actcgag 137

<210> 1728
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1728
gaattcgcgg ccgcgtcgac taaaccgtcg attgaattct agacctgcct cgagccgggg 60
ggagctgcta agatgggttt gaactataat gctggcatcg gcattactca gatctttttt 120
gtttttttga tacagagttt cgctcttggt gccagggctg gagtgcaatg gcacgatctc 180
ggctcaccac atctcgag 198

<210> 1729
<211> 302

<212> DNA

<213> Homo sapiens

<400> 1729

```

gaattcgcg cgcgctcgac aaaacttcga gactcagatt gttgcgtctg atcacacata 60
ttataactca aaactagagc catctggcaa aaataagaat cgatcaaaga tttcaaaca 120
agatcagtc aacaaaccag taaaaacttc agcgtcgagc agagttgaa ctcacagag 180
tgaagttgct cagtcatttt caggggaaaa agctaataca aaaactcaaa gaagccaaac 240
tcagaccatt ttagcaaatg ctgatacatc cactcctaca gattgttccc ctaaacactcg 300
ag                                                    302

```

<210> 1730

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1730

```

gaattcgcg cgcgctcgac tgcaaaagga gatcacaccc ttgccccgct gagccccgtg 60
ataacaagtc actccagact aacctgtgtg ccagacattt gtgcattgtt gcactttgag 120
gttattattt atcaagttct tgaaggagc agaaagaggg actcctctct ccctccgtgt 180
atagtctcta tgtttgtgct agtttttctt ttttttctct gtgtccagtc agccacaggg 240
cccgcatccc tcgag                                                    255

```

<210> 1731

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1731

```

gaattcgcg cgcgctcgac ctttttggga attaaatcct tagtctacat gttggcagca 60
tctttacttg gcctgggttt gcaccaatt tctggacatt ttatagctga gcattacatg 120
ttcttaaagg gtcagtgaac ttactcatat tatgggcctc tgaatttact taccttcaat 180
gtgggttatc ataatgaaca tcattgattc cccaacattc ctggaaaaag tcttccactc 240
gag                                                    243

```

<210> 1732

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1732

```

gaattcgcg cgcgctcgac gaaattacag tttgtatctg tttcttagta ggtgtggcct 60
ttaaaatatg tgcttattca ttgttaaatt ccagaataat agagtaatac ttaatactgt 120
acattccac ttacgtatat ttattaaaaa tttataagca agaaattata cataagtgg 180
catgatctta gggagacttc tcgag.                                                    205

```

<210> 1733

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1733

```

gaattcgcg cgcgctcgac ggatgcagtg gctattcaca ggcgcgatcc cactactgat 60
cagcacggga gttttgacct gctccgtttc cgacctgggc cggtcacccc tcgag 115

```

<210> 1734

<211> 484

<212> DNA

<213> Homo sapiens

<400> 1734
 gaattcgcg cgcgctcgac agcaagtccc acgcacagtc ctgaaaaaaa ttttaatctt 60
 cttttcttag aactatcttg gttggcatca tcaggccctg agagcacagt gcatgtcagc 120
 atctaagatt ccacttttca aaatgaagga cctgatactg atcctatgcc tcctggaaat 180
 gagttttgca gtgcccgttct ttcctcagca atctggaaca ccgggtatgg ctagtgttag 240
 ccttgagaca atgagacagt tgggaagtct gcagagatta aacacacttt ctcagtattc 300
 tagatacggc tttggaaaat catttaattc tttgtggatg cacgggtctcc tcccaccaca 360
 ttctctctct coattggatga ggccaagaga acatgaaact caacagtatg aatattcttt 420
 gcctgtgcat cccccacctc tcccatcaca gccatccttg aagcctcaac agccaggggt 480
 cgag 484

<210> 1735
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 1735
 gaattcgcg cgcgctcgac cctaaacat cacaatagtc tgtgttatgg catccccctc 60
 atcttgaat gtcctctccc tcagttccta tatgttatca cacatgcctg ccttggtctc 120
 tcctctcagt tgttccctct ctgtctcttg tgggtctctt attgtctgct cactcctctc 180
 tcagtgtcct cacatgggct tccttccctc ctcagctgat gccatcacct gggaatcac 240
 agttactcag cagcactggg gcctctccat ctctcgag 278

<210> 1736
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 1736
 gaattcgcg cgcgctcgac gatctatctt aggtggacaa agccatggaa tttgctatgc 60
 ctaagtcctt cagggtcata gctgaaagaa gtatgcattc atggtacgtt tgttttttaa 120
 tatgctttat tctgcatatt agtatcacat tacacagtgtt ggctcatgta tttgtaacct 180
 ggagagaaca tctcgag 197

<210> 1737
 <211> 424
 <212> DNA
 <213> Homo sapiens

<400> 1737
 gaattcgcg cgcgctcgac cattttggag ccactgaatg gactgggtgat gagacgaagc 60
 aacctttaat tgggaccatg cttctccagt acattcgttt gtattccatg gtgtaaacccg 120
 ggccttacgc gtggctccga ccttcgggtg aaatgcattt gcgtagcacc acccaggggc 180
 tcccttgctt tggctagagc ctcataaaag accccaggtt ttgcgaagga tttgaacac 240
 cagcgtcttt taacatgtgg aactttcggg tttgggttag ctctgtgaac gtatttataa 300
 cttgctacat tattccacag tgaaagtggg aaccttttta agagtatat tagagtgcct 360
 ttttaacatct gtcataatct ctataaaca cttttcagtg agaagcgtat atagtgtact 420
 cgag 424

<210> 1738
 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 1738
 gaattcgcg cgcgctcgac cttcatgtgt ataacattac tgattgccag cctcatctgc 60
 cttactttac cagtatttgc tggccgttgg ttaatgtcgt tttggacggg gactgccaaa 120
 atccatgagc tctacacagc tgcttgtggt ctctatgttt gctggctaac cataagggtc 180
 gtgacggtga tgggtggcat gatgcctcag ggacgcagag tgatcttcca gaagggttaa 240
 gagggtgtct tcatgatcat gaagactttg atagttgcgg tgetgttggc tggagttgtc 300

cctctccttc tggggctcct gtttgagctg gtcattgtgg ctccccctgag gggtcccttg 360
 gatcagactc ctctttttta tccatggcag gactgggcac ttggagtcct gcatgccaaa 420
 atcattgcag cgctcgag 438

<210> 1739

<211> 423

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (34)

<400> 1739

gaattcgcgg ccgcgtcgac cgcggccgcg tcgncccaac acccgactct attggtgcat 60
 ttaaaatgtg attccatttt ttcttacaat tcttcaggga acttacctgc attaagtggag 120
 gttaaagtca ttcaggaggt tgtttcttct atctagtttt agaataatat ttcttcggca 180
 aacctgcta actgcggttc acccttgaac acgttaatct gaggactttt tccaccaact 240
 cattaatgat ggtggaagca agtgatttat ttgtttcctg gagaatttga tgaagagcag 300
 tcttctctg ctgcccttta ctaagcaaaa cctggagcag tttaaataagg ctaaattggt 360
 ttgattaaat cttgagctcc gagttggaag gagaaaatga gaagttaacc cttttccctc 420
 gag 423

<210> 1740

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1740

gaattcgcgg ccgcgtcgac cttttgcagt acagcagggg tgctgacac caaggccctt 60
 ttctctggcc tgggtatcgt gtgattatgt ttgtcccggt tcctgtgtat tagacatgga 120
 agcctccct gccacactcc accccaatc ttcttttccc ttccggcagg gagtgcctc 180
 tccataagac gcttacgttt ggacaatcaa ggtgcacagt tgtaagtgcac cacaggcata 240
 caccttgagc attaatgtgc ataaccactt tgcctcgag 279

<210> 1741

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1741

gaattcgcgg ccgcgtcgac tttctttaga aagttgtaga ttccagggtt gagattttat 60
 tttatttaac ttgatttttg taagcattta gtaactaact gtaaatatcc ctcaagcttt 120
 ttcttctctg tttgaaacaa atgcgtttta tactcgag 158

<210> 1742

<211> 444

<212> DNA

<213> Homo sapiens

<400> 1742

gaattcgcgg ccgcgtcgac caggcaccct tgcacagggg tgcatttctt tagtcttctg 60
 tgggtctttt gatgtgggtt tgattttgct ttgtctttc tagctgagat ttccaagggt 120
 catcctcaga agctctgggt gtgccagagg acccccagaa ctaagaaggg agggcgagtg 180
 ggtctccatt ccccgagaag ccaggggcag ggtgggatgg ggaagaccag gaggcagagtc 240
 gagcctcaca gaagccagcg cgggtctctg ctcagacccc cagccggggc tctggaccca 300
 gggtaacagc cccagttcat cccaaccct ctcagagcct caagaggggt agctcggctg 360
 ccggaagaga ggggtgccct atccctggca acccctccac gtagcgtacc ccagcacctg 420
 ccaccgcctt tgccatttct cgag 444

<210> 1743

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1743

```
gaattcgcg cgcgctcgac tgctgctcca ctacagagga aacttcaaga aatgctgggt 60
tgctacagtg ttttagcttg tgagattctc tgggaccttc cctgctccat catgggggtca 120
cctctaggtc attttacctg ggacaaatac ctaaaagaaa catgttcagt cccagcgcct 180
gtccattgct tcaagcagtc ctacacacct ccaagctcac tcgag 225
```

<210> 1744

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1744

```
gaattcgcg cgcgctcgac gcaaaatgat ccctgggtcaa gatctgttgc ccaagatgtt 60
acaggtcaca atgaccacat ttgaaattgt ttcccttttc attttaccct gtgaaagcat 120
ctctcctaga gccttgcaag aggcaggtga cattgtgtcc atattttctc ctgtttcaga 180
acttctgttt cacaacaatt tctctctcgc tacaagtatt ctttctactca gcaactgggga 240
agttgggaac agctgggtcac caccatccct cgag 274
```

<210> 1745

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1745

```
gaattcgcg cgcgctcgac caggatgcc ccttgactac aactactttc caaaatgaag 60
atgaaaagaa taaagaagta tatatgactc cactcagggg tgtaaaagca acccaagcat 120
caaagtctac tcagctaaag actaacagag gacagagaaa agtgacagtt tcagctagga 180
cgaacaggag gtgtcagact gctgaagccg actctgaaag tgatcatgaa gttccagaac 240
cagaatcaga aatgaagatg agactaccaa ctcgag 276
```

<210> 1746

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1746

```
gaattcgcg cgcgctcgac tttaagttgc catttgggga ataattgcag tatgtgtaga 60
gactctcttg ggatgcactt atatttttat ttaatgacta cttgttttct agttttgccc 120
acaacgtctg aaaccacact cgag 144
```

<210> 1747

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1747

```
gaattcgcg cgcgctcgac ccacgagtta gcacaagtgt attcaaccaa caaccctca 60
gaactccgaa acctgggtgaa taagcacagt gaaaccttca ctcgcgataa caacatgggg 120
ctgggtgaagc aatgcttgtc atctctttat aagaagaatc tcgag 165
```

<210> 1748

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1748

gaattcgcg cgcgctcgac cgcttttcct aacaggctac tccttcctgt agagcagaaa 60
ttgtattttg cacgaacatg cagttattga agattaggat caaggataga caaggatatag 120
tagttatctt aaaatataca ctccaaagca gtattatttt aaaatccttt accctggcta 180
cctccctac ccggttccc ctccactcg ag 212

<210> 1749

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1749

gaattcgcg cgcgctcgac tggacccag atgcttgtct tcctgagagt gattggaggt 60
ctccttgcc tggctgctgt gtccagatc atctccctgg taatttacc cgtgaagtac 120
accagacct tcacccttca tgccaacct gctgtcactt acatctataa ctgggccaac 180
ctcgag 186

<210> 1750

<211> 303

<212> DNA

<213> Homo sapiens

<400> 1750

gaattcgcg cgcgctcgac cacaaaaataa tctacaaact tgattctctc ttgttcctgg 60
agtgtacttc ccaccgtcct tttaatcttt agatctaate tcaagcagaa atttctctac 120
aaaccttttc cacatcttcc taagtcaaag cccgcattta tagattctca tagaaccatg 180
tataggtttg cggcacttgt cctgttaagt gtgaatctaa tcaagggcaa atgggtgataa 240
aggectcaca ttgctgctct gttttacaac tctagtaatt tttacctgac aaaaacactc 300
gag 303

<210> 1751

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1751

gaattcgcg cgcgctcgac gattgaattc tggaccagcc gtgcaaatct ctagaagatg 60
acggtgttct ttaaaacgct tcgaaatcac tgggaagaaa ctacagctgg gctctgcctg 120
ctgacctggg gaggccattg gctctatgga aaacactgtg ataacctcct aaggagagca 180
gcctgtcaag aagctcaggt gtttggaat caactcattc ctcccaatgc acaaatactc 240
gag 243

<210> 1752

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1752

gaattcgcg cgcgctcgac cgaaagaatt gatggtgatg atgaaggcgc tgtgtcttgg 60
cgtgttctcc tacgtgaagg tggcagccag ctccctgctg catggcgggg gccggccggc 120
attgtctggc gccggcgtgg ccatccaggt gggtctctctg ctggcgctg ttgctatgtt 180
cccccgacc agcatctatc acgtgttcca cagcagaaag gactgtgcag acccctgtga 240
ccattgaac ctcgag 256

<210> 1753

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1753

```

gaattcgcg cgcgctcgac ctgtatttca gagtaaaatc tcctaaagga aataaaaaaca 60
cagagttgta atacacatgc ttgcaaaaac attagtcgtg aaatccctag caacaagtca 120
ctggattttt ctctgtcagc acgcgtgtca gctgccaaag aatagactta atgaagaagt 180
gcccacatgc tggcaggggc cccactcga g                                     211

```

<210> 1754

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1754

```

gaattcgcg cgcgctcgac atttatttgt tgtatttaaa aaatacattg ttgtaagagt 60
gattttttca atatatattt ttcctggggg ggatcatgct aactctcaa aagaaaatta 120
agaaatcatt cagatcatcc ccccttttta agtagtgtga attgcaaac ccaacatatt 180
ttttttactg tcagttgcgg tttatttatt ctttaactgt ctggtttagt agtttaatga 240
ttatgaaaaa tgtatctctc gag                                     263

```

<210> 1755

<211> 150

<212> DNA

<213> Homo sapiens

<400> 1755

```

gaattcgcg cgcgctcgac ctgatacctg cctcatagag ttatgaggat taagtgtctc 60
ctacctttga atgtcttgc cgggtgtttc cctggagata tcttgccaa gtatgaacag 120
cagtgttggc cacaaactca tcagctcgag                                     150

```

<210> 1756

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1756

```

gaattcgcg cgcgctcgac tccagctcta tttaaaaagt aaagacaccc accgactcct 60
gateccccct tttttctatg gagaacgttg ccttatactc tctacttcag atgatgaaca 120
ctgtgtactg tgtgtgcttt aaagaagttt tatttaattg ctcccttctt ctttctcttg 180
ttattcacct ccctgatgcc tgctttcagt tgagggttgg gggcaatgat gagcatatga 240
attttttccc actcgag                                     257

```

<210> 1757

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1757

```

gaattcgcg cgcgctcgac ggagtcacac gcgcaagcgc atcctggcct ttcttcagtc 60
cccacgtgcg atccttcccg gcaacttttt cgagaaaaat gcccaaatc aaggcggccc 120
gtgggggtgg gggtcaggaa aaacatgcgc ccctggccga tcagatcctg gctgggaatg 180
cgggtgcggc ggggtgccgg gagaagcggc ggggtcgcgg gacaggtgaa cctcgag 237

```

<210> 1758

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1758

```

gaattcgcg cgcgctcgac acgaaaacgg atgatcttga gcactatttc atggatggga 60
ggaaaaaatc catttttggg gattgcttac atcgctgttg gatccatctc cttccttctg 120
ggagttgtac tgctagtaat taatcataaa tatagaaaca gtagtctcga g 171

```

<210> 1759

<211> 585

<212> DNA

<213> Homo sapiens

<400> 1759

```
gaattcgcgg ccgcgtcgac cagagttttc cgagtgcctt tcttgatgct ggctgtttct 60
ctcacccgttc cctgcttgg agccatgatg ctgctggaat ctctataga tccacagcct 120
ctcagcttca aagaaccccc gctcttgctt ggtgttctgc atccaaatac gaagctgcga 180
caggcagaaa ggctgtttga aaatcaactt gttggaccgg agtccatagc acatattggg 240
gatgtgatgt ttactgggac agcagatggc cgggtcgtaa aacttgaaa tggtgaaata 300
gagaccattg cccggtttgg ttcggggcct tgcaaaacc gagatgatga gcctgtgtgt 360
gggagacccc tgggtatccg tgcaggggcc aatgggactc tctttgtggc cgatgcatac 420
aagggactat ttgaagttaa tccctggaaa cgtgaagtga aactgctgct gtcctccgag 480
acaccattg aggggaagaa catgtccttt gtgaatgatc ttacagtcac tcaggatggg 540
aggaagattt atttcaccga ttctagcagc aaatggcaac tcgag 585
```

<210> 1760

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1760

```
gaattcgcgg ccgcgtcgac tccgcttggg tattcgcatg ggcctacttt acatcacact 60
ctgcatagtg ttcttgatga cgtgcaaacc cccctatat atgggccctg agtatatcaa 120
gtacttcaat gataaaacca ttgatgagga actagaacgg gacaagaggg tcacttggat 180
tgtggagttc ttgccaatt ggtctaata ctgccaatca ttgccccta tctatgtgta 240
cctctccctt aaatacaact gttcagggt cgag 274
```

<210> 1761

<211> 400

<212> DNA

<213> Homo sapiens

<400> 1761

```
gaattcgcgg ccgcgtcgac gagacatgaa ggttttagcc actagttttg tccttgggag 60
cctgggggttg gccttctacc tgcctttggt ggtgactaca cctaaaacac tggccatccc 120
tgagaagctg caagaagctg tggggaaagt tatcatcaat gccacaacct gtactgtcac 180
ctgtggcctt ggctataagg aggagaccgt ctgtgagggt ggcctgatg gagtgagaag 240
gaaatgtcag actcggcgct tagaatgtct gaccaactgg atctgtggga tgctccattt 300
caccattctc attggcaagg aatttgagct tagctgtctg agttcagaca tcttggagtt 360
tggaacaggaa gctttccggt tcacctgtga ctactcgag 400
```

<210> 1762

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1762

```
gaattcgcgg ccgcgtcgac ccaagccctg tgcagttgaa aatctgaata taggccacca 60
cacctggcct cgtttccttc atagttatat gttacctagt tttttgtttt gttttattta 120
tttatttgag acaggtgtct actctattgc actccagcct gggcaacaag agcaaaactc 180
agtctcaaat aataataata acaacaactt aatgtgccag ctcgag 226
```

<210> 1763

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1763

```

gaattcgcgg cgcgctcgac gccttccccag caagaaagaa cgatctggga agtcccaccg 60
gcacaaaaag aaaaagaagc acaaaaaatc cagcaaacac aaacgtaaac acaaggctga 120
cacagaagag aaaagctcta aggagagtc aggggagaaa tctaagaagc gcaagaaact 180
cgag 184

```

<210> 1764

<211> 519

<212> DNA

<213> Homo sapiens

<400> 1764

```

gaattcgcgg cgcgctcgac caagatgtgg acagctcttg tgctcatttg gattttctcc 60
ttgtccttat ctgaaagcca tgccgcatcc aacgatccac gcaactttgt ccctaacaaa 120
atgtggaagg gattagtcaa gaggaatgca tctgtggaaa cagttgataa taaaacgtct 180
gaggatgtaa ccatggcagc agcttctcct gtcacattga ccaaaggagc ttcggcagcc 240
cactcaact ctatggaagt cacaacagag gacacaagca ggacagatgt gagtgaacca 300
gcaacttcag gagttcgagc tgatggtgtg acctccattg ctcccacggc tgtggcctcc 360
agtacgactg cggcctccat tacgactgag gcctccagta tgactgtggc ctccagtgtc 420
cccacgactg cagcctccag tacaactgtg gcctccattg ctcccacgac tgcagcctcc 480
agtatgactg cggcctccag cactcccatg aactcgag 519

```

<210> 1765

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1765

```

gaattcgcgg cgcgctcgac ggaaaatatg ctgctttggt tgatattttt caccctggg 60
tggaccctca ttgatggatc tgaaatggaa tgggatttta tgtggcactt gagaaaggta 120
ccccggattg tcagtgaag gactttccat ctccaccagc ccgcatttga ggcagatgtc 180
aagatgatgg tanatacagt gtgtggcagc gaatgccaga aagaactccc aactcccagc 240
ctttctgaat tggaggatta tctttcctat gagactgtct ttgagaatgg caccgaacc 300
aagctcgag 309

```

<210> 1766

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1766

```

gaattcgcgg cgcgctcgac ggggtttaga aattcattta taactggttc tctgatgtgg 60
gaaatcctga ttctgtcccg gggtctttgc tacttccttg aaaatactct agcttcatgc 120
tggttcaagg tggtttacct ggatgacccc cctccccgcg cctcgcccca tcccaggtgt 180
gtgccacacc cagtactcga g 201

```

<210> 1767

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1767

```

gaattcgcgg cgcgctcgac gtggcgcac tttatcttgg tttccacgag cagacgtga 60
agccatgatg actttgtgct tgetctcett ccagttgttt atcctctgct tactccttga 120
cccagtgtct gtgtggtctg ggtegcctcc gaggccaggt cctcgttgc caagcccagc 180
aggcctcgct cccccgcgac tcgag 205

```

<210> 1768

<211> 215

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (87)

<220>

<221> unsure

<222> (103)

<220>

<221> unsure

<222> (166)

<400> 1768

```
gaattcgcg cgcgctcgac tcttgaaaga atttttttcg ttatttttac atctaacaaa 60
gtaaaaaaat taaaaagagg gtaaganacg attccggtgg gangatttta acatgcaaaa 120
tgtccccggg ggtttcttct ttgcttgctt tcttcctcct taccnacc cccactcact 180
cacacacaca cacacacaca cacacatcgc tcgag' 215
```

<210> 1769

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1769

```
gaattcgcg cgcgctcgac cccatgtact ggggaagcac agccaactac ctgggctggg 60
ccatcatgca cgccagcccc acgggcctgc tctgacggg gctgggtggc ctcacctaca 120
taatggctct cctatacgaa gagcccttca ccgctgacta tctcgag 167
```

<210> 1770

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1770

```
gaattcgcg cgcgctcgac cttatgtttg ccgtttatc ccttcacaga aggcttggaa 60
tgtatttatt tatatttatt ttttcaaaat ccgaaatcat ttgcgagccg caatcgctcg 120
ctgcctgtgt gggggggccc agggcctgac ttgcacgttg cagcctctct ggccctctcg 180
ag 182
```

<210> 1771

<211> 468

<212> DNA

<213> Homo sapiens

<400> 1771

```
gaattcgcg cgcgctcgac tagcaatcga tgttgctttc ctaccatgt attgtccaga 60
agatattcga acatctcaaa tagacacact gttgacctcc atgaattaca gctgtgcata 120
tccacaggac acaactggaa atgaccgatt gccaggctcc agagcggttg caggatgat 180
tataaaagca gcaactgaac tggatagagt gcatacgtc ggtatcttgg atatctgtaa 240
tttgggtaat aataaagtgg aagtctattt gcacaagatt tatagtcag agaatacttc 300
ttaaaggtta gcaaatgaaa ttattacaga ttatacagat gtactgcttt aaagatattc 360
catcattttg ctggtaattt cagtaactgt tttcagcaag aatattacat gagctctaaa 420
gttattaagc agttttatgt tcgttttgtg tttagggaag ctctcgag 468
```

<210> 1772

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1772

```

gaattcgcg cgcgctcgac tctactcaca taggcctaca tttttactta atatagattt 60
cgccatactt tcccaccagg tctgaagtta accactacag ttcacatttt ctgtttgttt 120
attttgtttt gtttttagag acaggatttt tctctgttac agaggctgga gtgcagtgtc 180
accatcatag ctcaagcaat actcctctct cagtctctag agtagctggg atgacagacg 240
tgcaccacca tgcctggcta attttttttg tagagatggg gtctctctat gttgcctggg 300
cttgtctcaa actcctggct tccagcaatc tcccacccc tctcgag 347

```

<210> 1773

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1773

```

gaattcgcg cgcgctcgac ctttcttctc tgatatcttt tggtaaaata tttgttacia 60
taaccaagga gacaactttg agtaaatttc ccattatttt tgaagcctgt tgcctcttct 120
gccagggaga aacttcaccg cctgggtcca tatactttca ctaattaact gagcaccagg 180
ttcctggaga aacatattta ttaaattgca aaaatttggg gacatttagt cttcattttt 240
ggtcttctgt gtccagtggc atttttccta aattatgtcc agcatctcct cgag 294

```

<210> 1774

<211> 267

<212> DNA

<213> Homo sapiens

<400> 1774

```

gaattcgcg cgcgctcgac gtccctggca ttttaggtgt cggttgggta ggcagtcatt 60
gatcaggtaa tgcagtttgt tgagccaagt cggcagtttg taaaggactc cattcggctg 120
gttaaaagat gcactaaacc tgatagaaaa gaattccaga agattgccat ggcaacagca 180
ataggatttg ctataatggg attcattggc ttctttgtga aattgatcca tattcctatt 240
aataacatca ttgttggtca gctcgag 267

```

<210> 1775

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1775

```

gaattcgcg cgcgctcgac cttaaagcaa actaagacca gagggaggat tacccttgac 60
ctttgaagac caaaactaaa ctgaaattta aaatgttctt cgggggagaa gggagcttga 120
cttacacttt ggtaataatt tgcctcttga cactaaggct gtctgctagt cagaattgcc 180
tcaaaaagag tctagaagat gttgtcattg acatccagtc atctcttcct aaggatctcg 240
ag 242

```

<210> 1776

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)

<400> 1776

```

gaattcgcg cgcgctcgac gnaccccatc aaacaccaag aacagatatt cccactccta 60
agaaacatta taggaatagt tcagattttc ttctgttaaa tgcattccat cagctcacc 120
gattttttcc agcagacctc ctcttctatc ttgtgtgttg ctttatatgt cgtctcttgac 180
agctgtact atttatgcat gcatttctat agcaaaacct tgattaactg ggacacgctc 240
gag 243

```

<210> 1777

<211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1777
 gaattcgcg cgcgctcgac ctagaatgtg gccaggcaga ataatgacag tgactgtggt 60
 gcttttgtgt tgcagtactg caagcatctg gccctgtctc agccattcag cttcacccag 120
 caggacatgc ccaaacttcg tcggcagatc tacaaggagc tgtgtcactg caaactcact 180
 gtgtgagcct cgtaccccgga ccctcgag 208

<210> 1778
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 1778
 gaattcgcg cgcgctcgac gtcacacaga tgcccacacc cctgtctctg cctgaatctg 60
 tgttgagagc tagcttgggg gacccactct ggctgtgccc actgtccat ccctggccca 120
 ggccagcagc ctccagcact ggggtgggagc tgaagccata tggcattcaa cctcccagat 180
 tccaggctaa ctgcgaaatc ccgtgtggga ggactcgag 219

<210> 1779
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 1779
 gaattcgcg cgcgctcgac tttatctgct ctgtcatata tttactaatt gtatggctgg 60
 gacaaaaata catgaggaat aaacagccat tctcttgccg ggggatttta gtgggtgtata 120
 accttggaact cacactgctg tctctgtata tgttctgtga gttagtaaca ggagtatggg 180
 aaggcaaaact cgag 194

<210> 1780
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 1780
 gaattcgcg cgcgctcgac cttttgctct ccggaattta agcacggggg cagcacattc 60
 agaaggtttt tctgttcagg aacagtttagc tactggtgga attctgtggt ttcctgacct 120
 cactgcaccc gactccactt ggattctgcc tatctctgtt ggcgtcatca atttggtta 180
 agtggagatt tgtgctctac aaaaaattgg aatgtctcgt tttcagacgt atattacgta 240
 ctttctccgt gcaatgtcgg tgttgatgat accaattgct gcaacggtac cctcatcaat 300
 tgttctctac tggttatgct ccagcttctg gggcggaactc gag 343

<210> 1781
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1781
 gaattcgcg cgcgctcgac ctaaagtgcc tttagcaaca gttacagtaa ttgatcaatc 60
 agaaaactaag aagaagggtt tctgttgag gactgcagca ttttgggcat ttacagtgtt 120
 tcttgagat ataattttac tcacagtcct agctttcaga atgctctcct tgaaatttct 180
 cgtctgttcc ttttttctga agaacatgca tcctgaatgt tggatcatga aaagtcttga 240
 atgctgtact agctcttctt ggctaggcag tggggaacca ctgtttttta atgttggtat 300
 tcatgaggac caatggattg gcgtgacagt actcgag 337

<210> 1782
 <211> 266

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (132)

<400> 1782
gaattcgcgg ccgcgtcgac atgcttttgt ctccacagca accagccact gcaggcagca 60
tgtctttcct cccctgctct ctgcttgcn gttgtttgac gctattctgc ttgcatgtct 120
tctggttggg angtgagggt gttgctggac tctcaggcga agctgaagtc attgaagtgt 180
gtgaagctct gtgcttgcat gagggcaagc aaggaatggc tgtgcctgag gctgctctgg 240
gaaactcctt gccccttaac ctcgag 266

<210> 1783
<211> 382
<212> DNA
<213> Homo sapiens

<400> 1783
gaattcgcgg ccgcgtcgac gtaatgtcaa catgatgttt cgctcagatc gaatgtggag 60
ctgccattgg aaatggaagc ccagtcctct cctgtttctta tttgctttat atatcatgtg 120
tgttctctac tcagcagtgt ggggatgtgc caactgccga gtgggtttgt ccaacccttc 180
tgggaccttt acttctccat gctaccctaa cgactaccca aacagccagg cttgcatgtg 240
gacgctccga gccccaccg gttatatcat tcagataaca tttaacgact ttgacattga 300
agaagctccc aattgcattt atgactcatt atcccttgat aatggagaga gccagactaa 360
attttgtgaa gcaaccctcg ag 382

<210> 1784
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1784
gaattcgcgg ccgcgtcgac cctaaaccgt ctattttttt ctagtgaatg tattttaacc 60
acagtgtcct aaactgagaa aactagagag gaaaaagtgg gtgttcatga actttgtagt 120
tgggagagt gttttacatg tctgtgtatt catgactttg ggagtgggta ggatcattgg 180
agagagaact gcacagctcg ag 202

<210> 1785
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1785
gaattcgcgg ccgcgtcgac ctgaaacaca aggaaagcta gaagaaaaac ttcaggagtt 60
ggaagcgaat cccccaagtg atgtatatct ctcattcaaga gacagacaaa tacttgattg 120
gcattttgca aatcttgaat ttgctaagtc cacacctctc tcaactctct cccttaagca 180
ctgggatcag gatgatgact ttgagttcac tgggcagact cgag 224

<210> 1786
<211> 221
<212> DNA
<213> Homo sapiens

<220>

<221> unsure

<222> (91)

<400> 1786

```

gaattcgcg cgcgctcgac attctttgtc attatataag gcccctgttt gtctttatct 60
gtacgattgt tagtttaaag tccattttat ntgataggag aatggctatt cctgctcact 120
tttgttttcc attatttttt ttccacactt ttactttgta tctgaatgtg acttttagcca 180
gtaggagagt gtcttgtaga gagcaagtgg tcggtctcga g 221

```

<210> 1787

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1787

```

gaattcgcg cgcgctcgac ggacaattgc aacgactcca acaaaaccag ttcaaggctt 60
aggaactgtg tctcttagtt tcaagaaaat gaattggatt ttatttggtg tatgtgtgag 120
tatgattaca gatcaagaca cacaccctta tacacacca cccccccca cacaactcga 180
g 181

```

<210> 1788

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1788

```

gaattcgcg cgcgctcgac ctctctttaa aaaacagtat ctagggtaaa tatactctaa 60
cctcttccca ggcaagtaga aaaaaggcag tctggagtca aacagtgagt tcagtttcca 120
gctaggacct tgtggcaacc ttatataaca tctgtaaaacc atagtctctc cttattttaa 180
atgaggataa tcgcactcgc cctcgag 207

```

<210> 1789

<211> 160

<212> DNA

<213> Homo sapiens

<400> 1789

```

gaattcgcg cgcgctcgac gtcttagttt gattggcttg tctttgaaaa tgtctccaaa 60
gccactccc ttaactttct tgggctggat tgctgcagtt gccactgtcc cgttggcacc 120
ttcagacttg gtgctgcttg agtcaccccc aacactcgag 160

```

<210> 1790

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1790

```

gaattcgcg cgcgctcgac agaacacaga tttttagcaa aaggctatct ggtgagttaa 60
ttggctgttt tgttctatct tgctctaate ggtcagttat tctagctag tctatgtatt 120
tacttatatc tgctgctttt ttgtactgtg ctgaagcttt atgtagcaag caacttagcc 180
gacaactcga g 191

```

<210> 1791

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1791

```

gaattcgcg cgcgctcgac ctgccttaat tagaaagtct gccacttcca gaaagcctcc 60
acagcaagcc agagtcaagg cagtttcttg agtttcttct gtctgtgcat tgatatttgc 120

```

tccttgacca agaagtaatg ccaccatttc ttcattgtcct tctcgag 167

<210> 1792

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1792

gaattcgcgg ccgcgtcgac aaataataaa gatcagaaca gagacaagtt agaaagaaaa 60
accatagggg aaaaaagtca gtaaaactaa gacttcaatt tttgaaacaa agaattgatt 120
tttgaaaaat aaatcaaca aactcttgga ctaagaaaga ggacaaaatc agaatgaaa 180
atggagaata tattacaaca ggtactcctc gag 213

<210> 1793

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1793

gaattcgcgg ccgcgtcgac cttgattgga aagttttctg aaacaaagag acttactaat 60
tttttttgtt gttctatttg attcttgcat ctttgtccca cattttctct ctttgtttct 120
ctctgtggct gttttatttt tactttgata tgcttttact tctttcttat gttgttttct 180
gtatctatac aggcataatc tttgtgttac gtgggggatg cctcgag 227

<210> 1794

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1794

gaattcgcgg ccgcgtcgac agactctcaa atataaaata tttgctacag tgtatatatg 60
gtacataatt gcttggtgct tttaaagttc cttctgttgt tctgcttccc actgatttca 120
taccagctca tgaatggatc attacagtct ctccagaggc ttagaatgat tcagaatggt 180
caatgcacag atctcgag 198

<210> 1795

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1795

gaattcgcgg ccgcgtcgac gggaaatctt tttttttccc ctagtataatg tttgataaga 60
aathtagtgt attgactgcc tcagtgcacac aatttatctt taaaggtgtg gaagctggtg 120
gggaccaaatt gttacctgtg tttttgtgtg tgattgctat tttcagaagc aaacctatgt 180
tttcaattac agtaggagtc aacaaatttg ggattttaga agggggagga gggagcggac 240
tcgag 245

<210> 1796

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1796

gaattcgcgg ccgcgtcgac ctatttatgg gtaaaatctg taaaactggg tcagtttttt 60
ggacaatgtg ctgctgctta tcctatttct atatggtctc tgcttggggg ggttatgtat 120
ttatcatcaa tcttattcca ctgcatgtat ttgtgtgtt actgatgcag agatacagca 180
aaagagtcta catagcatat agcactttct acattgtggg tttaatatta tcaatgcaga 240
taccttttgt gggattccag ccaatcagaa cacatctcga g 281

<210> 1797

<211> 240
<212> DNA
<213> Homo sapiens

<400> 1797
gaattcgcg cgcgctcgac tgaaaaatcc attctcttgg tgtcactacc agtctgctta 60
gttttaagt aaattccttt tatgtctact tggtttttac ttgtgtcaac atttagtatg 120
ctacctcttc tattgaagga tgaactccta atgccctctg ttgtgacaac aatggcattt 180
tttatagctt gtgtaacttc cttttcaata tttgaaaaga cttctgaaga agaactcgag 240

<210> 1798
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1798
gaattcgcg cgcgctcgac ccctttatct catctgtatt taaacctctc tattccctgc 60
cataacatct ttggccacgt atagctggaa ttaagtgttg tcttgagctt gttgtacatt 120
taagaataaa cttttgtaaa aaaagaaaaa tcttacagtg gctcatcatc tctttagtgt 180
ttttcactaa gtcgttccta ccataactgt gaatttaaag taaaaccagc tcagaatctt 240
gccagagtct gttctttggt ccttggttcta cccatctcga g 281

<210> 1799
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1799
gaattcgcg cgcgctcgac gtgtatactt aatagaggta attttttctt cccctagtta 60
tttctttccc attgaatcaa gttacataca agtttctaac cattcctggt ataggctttg 120
gtgattgact tcattttaat aatcttttta tttcattgcc ttccaccag ttttttaaac 180
tcatgaaatt ccacaccca cttctcgag 209

<210> 1800
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1800
gaattcgcg cgcgctcgac gcaatactta agagtagttt gggtttattg aagatttttt 60
gctaggagag agaaaaattt ttgctaggag aggtttcaag gtaagagtat atactttaaa 120
catgtatata aatgtttttg ctacttttct gtcactacct ttcttacctt gtcctttaca 180
tggatatagg aagaaactcg ag 202

<210> 1801
<211> 131
<212> DNA
<213> Homo sapiens

<400> 1801
gaattcgcg cgcgctcgac cgaggccaac acacagaaat taaaagtaga aacaaaatga 60
gggcacactt gctcctgtcc ttggcttggc ccctccaacc tccaaaagaa ctgtcctccc 120
cattcctcga g 131

<210> 1802
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1802

```

gaattcgcg cgcgctcgac atttatctgt gaatggcagt cccactcaac tataaactat 60
ctgtatctta acaccagaa caaatctagg cactcagttg gcttctcagt ggttttttgt 120
ttgaatcccg tgtcctctga tgtatttgca ctattttgct ttattattta acttcttact 180
tatgtttttt gtctctgcag tagtatcact gcaggagagt gaagagttgg taagaaagtt 240
tcatcattta caggtgattc tcgag                                     265

```

<210> 1803

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1803

```

gaattcgcg cgcgctcgac ggacaaggca ggggtaggca cactggttaag cttaggattg 60
aatagtttga gtaattttgt tgggtctctg gatctagggg ggattcgtaa ttgtctagtt 120
agggcagggg aatattgaat tgggtgatga gagtttggtta aaggagatag ttgggagtat 180
gggtctctgga ttggttggtt tgtatatgaa aggcattgctt gcagtggagt ttatcatcta 240
tgcattagct tgccttgga ggggcctcga g                                     271

```

<210> 1804

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1804

```

gaattcgcg cgcgctcgac gtatttttaa attttgtaat ttaataacta cttttgaatg 60
aaaacattac ctttaactct ttttttttcc tttcttaggc ttgaaaagga atacactaca 120
ataaaaaacga aagaaatgga agagcaagtt gaaattaaag taagcagtcg ggggctcgag 180

```

<210> 1805

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1805

```

gaattcgcg cgcgctcgac gattagagta ataattttgt catttaaaaa cacagttggt 60
tatactgccc atcctaggat gtcaccttc caagattcaa cgtggctaaa acatcttctg 120
gtaaattgtg cgtccatatt cattttgtca gtagccagga gaaatgggga tgggggaaat 180
acgacttcac tcgag                                     195

```

<210> 1806

<211> 303

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (271)

<400> 1806

```

gaattcgcg cgcgctcgac ctcggaactt cttcacaatg agaaacctga aaggtcccag 60
cagccagcaa tgaatgaaag gtgggggtgg ggcgctggca gggcgaggcc ttgtgagcca 120
tgtgcctgtg ctctcaagtc cgaagtgtgt ggggatgcat gcaggagatt ctggccctga 180
ttgtttcccc agaaccagga tgcgttcttg ttggcaggac aactggcctt cacttggtgg 240
ccttcagtgg gtgttctcat tggttgcctt ngtttagtgc cctcagttgt atctcttctc 300
gag                                     303

```

<210> 1807

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1807

gaattcgcgg ccgcgtcgac caatttctga agaagaccaa aaagaaccac aagacgatga 60
 atgaaaaggc atggaagcgt tgggtgcacac aaatcctctc tgccctaagc tacctgcact 120
 cctgtgacct ccccatcatc catgggaacc tgacctgtga caccatcttc atccagaaca 180
 acggactcga g 191

<210> 1808

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1808

gaattcgcgg ccgcgtcgac ataaaaggaa gattaacaaa gttaccctgg aacaatagct 60
 tacttatcca aatctcaaca ttacattttt aacagttttg tatgtttcaa agttgaaact 120
 actgtaagag aaagccaata ctattttatat ctgaatcaac agtagcataa acatttttta 180
 attgagattg tattttaatc ccttttggtt aagtacatta acaacagttt ttcacaggat 240
 atgaacttgg cgaaattagt tcttaatctg aatatactcg ag 282

<210> 1809

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1809

gaattcgcgg ccgcgtcgac atggagatac ctagtatgga tcggagagag ctgtttttcc 60
 gagatattga gcgtggtgat atagtattg gaagaattag ttctattcgg gaattcgggt 120
 ttttcattgt gttgatctgt ttaggaagtg gtatcatgag agatatagcc cacttagaaa 180
 tcacagctct ttgtccctta agagatgtgc cttctcacag taacctggg gatcctttat 240
 catattacca aactggtgac ttactcgag 269

<210> 1810

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1810

gaattcgcgg ccgcgtcgac cagttttttg taagactctg tggatttgtt ggaggaatct 60
 tttcaacaac aggcattgta catggaattg gaaaatttat agttgaaata atttgctgtc 120
 gtttcagact tggatcctat aaacctgtca attctgttcc ttttgaggat ggccacacag 180
 acaaccactt acctctttta gaaaataata cactcgag 218

<210> 1811

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1811

gaattcgcgg ccgcgtcgac tgagaattgg caaactaatg ttgtttgggt ctatcttccg 60
 ctgtttggat cctgctctca ccattgctgc cagtttggct tttaagtcgc cgtttgtatc 120
 tccctgggat aaaaaagaag aagctaacca gaaaaagctg gaatttgcac tcgcaaacag 180
 tgattatctg gcccttctac aagcgtataa gggatggcag ctaagtacaa aagaaggcgt 240
 gcttctcgag 250

<210> 1812

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1812

gaattcgcgg ccgcgtcgac ggggaaaaca tcattactga tattttaaac ggatgtttta 60

ctttccatca acatgaacct caacttgata tgatgcagat tgaaggaaat caccataat 120
 tccacattaa gaaggcctgt gatattttat gggaaaataa atagagaaaa tgctaacaga 180
 aaccctatta agcattaagc tttatggagc aaagacaaat ccagtgggtga aagatacaca 240
 ctcgag 246

<210> 1813
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 1813
 gaattcgcgg ccgcgtcgac cttcaccttc caccatgatt gtaagtttcc tgaggcctcc 60
 ccaggtgtgc ttctgtaca gcctgtggaa tggtaccaa gacgttggaa gaggtggcta 120
 tggacatcac ctgggagaag tggaaagcaa tggacactgt tcagaagtcc atatacagaa 180
 acatgttga ctcgag 196

<210> 1814
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 1814
 gaattcgcgg ccgcgtcgac acagatttga gcaaatacaa ttaagggtgc ttattttttg 60
 catcaagtaa ttattgctgt ggtctttcta ctccacaaaa taattttttc tttttgcagt 120
 tgaaaattaa ctgcattatt aactaattaa taaaataaat caagtgggtat aagggattag 180
 ttaccctca agccgatgac tccatggcta ctgatattag ttagtttagg atttttaaaa 240
 agcatatcag accccaact cgag 264

<210> 1815
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 1815
 gaattcgcgg ccgcgtcgac taattttcct gccactactc agtactgtgt gggtcaggga 60
 tcaccattag ggaagacaga gtagctcaga aatcagtagt gaggaggagg acagcacttt 120
 gtgtgggtatc ttgctctagg agcattttca agccatcaga agtgggactc ttgaagacta 180
 tttctgactt tctcagcaca aattaagata ataggagatg gaggtcccat ttgaaaaaca 240
 ttttggttgt ataattgtta gcataaaaaca tacttttttc aagttaactc aggcactcga 300
 g 301

<210> 1816
 <211> 214
 <212> DNA
 <213> Homo sapiens

<400> 1816
 gaattcgcgg ccgcgtcgac gataattaaa gactccactt ccaagaaagg atacaacaag 60
 gaaaataaga ggttggttaa taaaaattat gccaaagata agcctgtaga aagcttctgt 120
 ggtgcgtatt tggtagattt tatggatgga tttcgtgaag gataaatagc agagtcctga 180
 ggggggaaaa aaggatagaa gggccaaact cgag 214

<210> 1817
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 1817
 gaattcgcgg ccgcgtcgac gcacttccta gctattttcta ctacctttcg ttttcatgat 60
 tttcttactt ctatggctgt ttccgcacct tgaggttttt ctctcttctt atattcatte 120

tcccacaagt ttaatttatg ctatgtgtgg cttaaagtat tacctaaatg ttgtcaattc 180
gtcccccac acccccgcaa atcatcctct ctacttaciaa ctcgag 226

<210> 1818
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1818
gaattcgcgg ccgcgtcgac cttcaggaac ctgtcacatt tttccatctg gtacctccac 60
cctattctga gtatcctccc cttccacccc caacatagta tctttcaaag aatcccttgc 120
ataggagact gtaaccgaaa gtgttagctt ttcaccaggc tatttacact ttacgcctta 180
gttctaattg tggaggaaa aacttttccc ttgtcaaagt aatgttatgg cttcagagaa 240
cactcgag 248

<210> 1819
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1819
gaattcgcgg ccgcgtcgac cttgattttc attttgcatt atattgacgt gtttttttga 60
aggaaaaaaa gtaataaaaa tctgatagtc taagactcca ctatttaaaa gcctaattac 120
tttaaaaata tgcatacttt cagaactttt accaaaacac tcgag 165

<210> 1820
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1820
gaattcgcgg ccgcgtcgac ctttttgctt tgcctatttt aatttttttg ttgaagatta 60
acagttctgt tgttctggct actgttgctt ggaagaaac acacatgaac aaactcacct 120
tctgcattat actgacatca ttatatttgc caattgattg tgagctaatt ggggttatag 180
aaacgtgcta tagcataaca gactgtaatt atttctctct aggcgttctc gag 233

<210> 1821
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1821
gaattcgcgg ccgcgtcgac ttttgattct gaaaattggg ggaaaaaact tttaatcaca 60
attttcttca atacaagggg aaaatattct tgcggattcc caacgttttg tgatatgagc 120
agaaaatcat tagcatttcc catcatttgc tcatatttgc gttttctgac agttgccact 180
tgtagcattg cctgtactac agtatttttt gccaacctca ggcatactcg ttacatctgt 240
attgaacttt cggccctaaa actcgag 267

<210> 1822
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1822
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctggtttg 60
ccggacttgt ctttctgcac ctgatgttgc agctctgcaa ggatcgattt gaatatcttt 120
ccttctcgcc caccacgcc atgagcagcc acggtcgagt cctgtccctg ttggttgcca 180
tgctgcttcc ctgtgtgga ctggcgccgc tctgtcccat caccggctac acccagaaa 240
tgctcgag 248

<210> 1823

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1823

```
gaattcgcgg ccgcgtcgac acttgccac ccagcctcct gctctagaca ctccctgtcc 60
aggccatctt gcactgcctg gttaatcatt cagaaatatt gtaccaattc tactctttcc 120
ctccttcagt gacttactat tgtctgcaga atgaagtata agttccttat tcaaggactc 180
atatgcagga actttccaga attgtcctct tctatttcc ctagtgccat tgacatcggt 240
actttgcac agtgcctacc accctttccg atacatctcg ag 282
```

<210> 1824

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1824

```
gaattcgcgg ccgcgtcgac tttttgtaac actttttgt atttttgcca tttgaaaagg 60
ttgtggtgta gttggtctgt aattaagttg cagatttaaa actgctgtta gctttgtaaa 120
tcaaaatata ggtgtttttt gtcctggtat atcgctatc catctgcagc tggagctgga 180
atcccatgta tcttctagct accattcatt ttcttctactg ttcacaaaag aagagtgtga 240
aattcagtgta atgctgttac taatcctgtt actcgag 277
```

<210> 1825

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1825

```
gaattcgcgg ccgcgtcgac cagagtaaga gccatctca aaaaaaaaaac caaaacaaaa 60
acaaaaaaag ggtaaggact ttggtggggg atcatatgat ttggaacata gatttttttag 120
tttttgtttt tttttgtggt cttcaagaga gcagttcaga gaccaggggtg catggtgggt 180
tactgagtgg gttggaagaa tatggaagca cgctcgag 218
```

<210> 1826

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1826

```
gaattcgcgg ccgcgtcgac tgcataatgtt aggagtggaa acaatctgga aaacattttt 60
ttttcatcca aaaagtattc tccttgggca tatctgatgg aaaaaaacct tgattttatt 120
ttcgtatctt tagtctgtgt tctttctagt tatttggtag taattatgtg caatctaaaa 180
acacccccac tcgag 195
```

<210> 1827

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1827

```
gaattcgcgg ccgcgtcgac ggttctttcc attcctatc cctccttaac catttctcta 60
cccagaatca gtctgttaac agtttaatgg cattgcttca ttttaaaaaa tgattgcatt 120
gtatttcatt ttatggatgt gccaaaattt acataattgt tattctgttg atgaaagttt 180
aggatgtcac ctcgag 196
```

<210> 1828

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1828

gaattcgcgg ccgcgtcgac gatactccct cattcatgaa aaaatgcgtt tatttttagt 60
agtgcctttg attctgtgtt ttgtttgttc ttgggtttt tttctagaag agtcttggtg 120
gaagctctgt ttccagaatg ctggattggc tgtggtgggg tccataaccc actgcctgta 180
tcaaactcat actccaagac tcgag 205

<210> 1829

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1829

gaattcgcgg ccgcgtcgac caggcttggg gactctactt gtcaccaga tgatcctaca 60
cctgccacct ccgatggatc cactgcctct gtgcctgcct gtactgtga tgctccagt 120
gataactcag catccagcc taggccaat gccactgaag atggacctgc accctgggga 180
cccaggagtc ctaccactca gctgtcccca ggagtggcca gacctcatt cttatccagg 240
acttctcgag 250

<210> 1830

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1830

gaattcgcgg ccgcgtcgac ccgaggttgg accctactgt gacacaccta ccatgcggac 60
actcttcaac ctctctggc ttgccctggc ctgcagccct gttcacacta ccctgtcaaa 120
gtcagatgcc aaaaaagccg cctcaaagac gctgctggag aagagtcagt ttccagataa 180
gccggtgcaa gaccgggggtt tgggtgtgac ggacctcaaa gctgagagtg tggttcttga 240
gcatcgcagc tactggctcg ag 262

<210> 1831

<211> 215

<212> DNA

<213> Homo sapiens

<400> 1831

gaattcgcgg ccgcgtcgac cccaaggtaa tgctttcttc catttcatca ggttctttta 60
tcccactgc accccctccc cttctccctt gcctatctgg atggcttctc agaagctcgg 120
ccctagtcct ccctgccttg gcggggccag agccactac tgctgaggca gcaactgtct 180
cgtcagctgt gttgccttta ccaagtgecc tcgag 215

<210> 1832

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1832

gaattcgcgg ccgcgtcgac cagaaaacct ggacagtgc cttctacaca agaattttat 60
atgtatttat gaagatgatt ctgtacccta gtatatcttt ttgggcatgg actaatttgt 120
atctgtttta ctcatattct gcacgatctg tatatagtac atcagaactc gag 173

<210> 1833

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1833

gaattcgcgg ccgcgtcgac agaacggccc ctgccaaca tcttcaacct gtacaccatc 60

ctcaccgtca tgctccagtt ctttgtgcac ttcctgagcc ttgtctacct gtaccgtgag 120
gcccaggccc ggagccccga gaagcaggag cagttcgtgg acttgataaa ggagtttgag 180
ccaagcctgg tcaacagcac cgtc 204

<210> 1834
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1834
gaattcgcgg ccgcgtcgac cctagatata aggaaaatag tagaagcttg taaagccaaa 60
actgatgctg gcggtgaaga tgctattttg caaaccagaa cttatgacct ttacatcact 120
tatgataaat attaccagac tccacgatta tgggtgtttg gctatgatga gcaacgacag 180
tctcgag 187

<210> 1835
<211> 137
<212> DNA
<213> Homo sapiens

<400> 1835
gaattcgcgg ccgcgtcgac ctatcctgcc tgcctttatc tgccttgccc tgcgattatt 60
tggctttgta agcataagct acgtaagaca taccacacct aagaaactaa acagcaatga 120
aaacccatat gctcgag 137

<210> 1836
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1836
gaattcgcgg ccgcgtcgac gttggtgtta atttctgatt aacccttgaa tttaccgtct 60
tctcatcctc tgtacaaaag cctcaagtga ggggtcaaatt caacattatc ctgatctaga 120
cagcccccat tctcaatcca cctttttcca agttgattgc ccaaggactt ctaacaataa 180
actctctttt gcaccacaga cttctttgaa aatatacatg ctggtgaccc gcacg 235

<210> 1837
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1837
gaattcgcgg ccgcgtcgac tgttgataaa atgaaactag tggaaatctt gtgtcaagta 60
ttacagtctg ctgggttttt cagcattgac caggaagaag atgttgactt cctggccaga 120
ttttctaagt tggtaaattg aacgggactc gag 153

<210> 1838
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1838
gaattcgcgg ccgcgtcgac ccatgaagag aagtttacag gccctctatt gccaaactgtt 60
aagtttcttg ctgatcttgg cactgaccga agcgttgga tttgccatcc aggaaccatc 120
tcccaggga tctcttcagg tcttcccttc aggcactccc ccgggaacca tgggtgacagc 180
acccacagc ctcgag 196

<210> 1839
<211> 292
<212> DNA

<213> Homo sapiens

<400> 1839

gaattcggcc aaagaggcct actttctcca gaagtcaaga aagcggtcag cgacgggtgtg 60
attctcaaac atgatattgt ccacatgcct gtacttctgt ctgttcagcg tgatggcgct 120
cggctggcac ttagtacaga tgccattcgg ccacgggagg tgcccctcgc accctgactt 180
aatcttgacg ctgatgttct ccagggcaac aaacttcccc ctacttgtca gccctccag 240
tcagcttccg gatgtaggcg tgggaaggaca tgtgcttcac gggaggctcg ag 292

<210> 1840

<211> 312

<212> DNA

<213> Homo sapiens

<400> 1840

gaattcggcc aaagaggcct attgaactac tggctgacca tgtttcgaat caggtacatc 60
caccggccct gcctgcagggt gatcgaggcc atgctggtgg ccgccgtcac ggccacagtt 120
gccttcgtgc tgatctactc gtcgcgggat tgccagcccc tgcagggggg ctccatgtcc 180
taccgcgtgc agctcttttg tgcagatggc gagtacaact ccatggctgc ggccttcttc 240
aacaccccgg agaagagcgt ggtgagcctc ttccacgacc cgccaggctc ctacaacccc 300
ccaaccctcg ag 312

<210> 1841

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1841

gtcaggatgc agatgtctcc agccctcacc tgcctagtc tgggcctggc ccttgtcttt 60
ggtgaagggt ctgctgtgca ccacccccca tcctacgtgg ccacactggc ctccagacttc 120
ggggtgaggg tgtttcagca ggtggcgag gcctccaagg accgcaacgt ggttttctca 180
cctatgggg tggcctcggg gttggccatg ctccagctga caacaggagg agaaacccag 240
caactcgag 249

<210> 1842

<211> 779

<212> DNA

<213> Homo sapiens

<400> 1842

gaattcgcgg ccgcgtcgac gtcttgacc agtattcaat gtggggaaat aaatttgag 60
tattgctttt tctgtattct gtattactga caaagggcat tgaacacata aaaaacgaaa 120
ttgaagatgc aagtgaaccc ttgatagatc ctgtatatgg acatggcagc caaagttaa 180
ttaatctcct gctgacggga catgctgttt ctaatgtatg ggatgggtgat agagagtgt 240
caggaatgaa acttcttggg atacatgaac aagcagcagt aggattttta acactaatgg 300
aagctttaag atactgtaag gttgggtctt acttgaaatc tccaaaattc cctatttggg 360
ttgttggcag tgagactcac ctccacgtat tttttgcaa ggatattggt ttagttgccc 420
ctgaagctcc ttcagaacaa gccagaagag tttttcaaac ctacgaccca gaagataatg 480
gattcatacc cgattcactt ctggaagatg tgatgaaagc attggacett gtttcagatc 540
ctgaatatat aaatctcatg aagaataaat tagatccaga aggatttagga atcatattat 600
tgggccatt tcttcaagaa ttttttctg atcagggctc cagtgggtcca gaatctttta 660
ctgtctacca ctacaatgga ttgaagcagt caaattataa tgaagaggct atgtacgtag 720
aagggaactgc agttgtgatg ggttttgaag atcccatgct acagacagag acactcgag 779

<210> 1843

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1843

```

ggccccctatt gcgtggctgc tgggtgtgtgg ggtcagttcc agcagatgaa tgtgtcatgt 60
ggcacacctt gtcccttccc gcagcatttc ctggttcccc ccagaccctt gagegctctt 120
tgggaccagc aaggagtcct tgcacagggg aggccttgagg tgagaagccg cttcccagac 180
tgtcagggcc aggcctgggt ctagaattct tgcgtgtgct ttgcagagtc aacagcccat 240
cagcccatgt tttagagggg acacttttgt cctcggttcc caccctcagc aagcaggcct 300
ccagcccagc gaaggcctct gccgtagtga cgttgccgtg tggggctgcg tggctgttcc 360
ccttgggtgg agcattcagc caaccccagc gtcccccta cctcgag 407

```

<210> 1844
 <211> 369
 <212> DNA
 <213> Homo sapiens

```

<400> 1844
gaattcgcgg ccgcgtcgac ggagacgcgg ccccgtagcc gaggcacct tcagcaaccc 60
gggggagcgc ttttccccct accggaaatc tgatgggctt atgacatcat ggctggctgc 120
tgagcgatga agtggatgcc acaaagaaat ccgacatata agatagattc tgaaatcggt 180
ttccctccag ctgtagttaac aggcgtgaag tcaggagaat ttgagctttg tttaaaaaat 240
aaataaataa ataaataaac cataacaaag tcttgccctg tattaatatgc aattttctta 300
aaaacaagca aaccttttgg acatcatttt attttaatag aaatgctgag ttttatgaaa 360
ctactcgag 369

```

<210> 1845
 <211> 213
 <212> DNA
 <213> Homo sapiens

```

<400> 1845
gaattcgcgg ccgcgtcgac aagaagctta agcgcatctt tgtggctact aactcacctg 60
acagctttgc atttgagtga caattccctg tcccgaattc cttcagacat tgccaagctt 120
cacaatctgg tgtatttggg cctgtcatct aataaaatc gtagcttacc cgcagaactc 180
ggaaacatgg tatcactcag ggcgtctctc gag 213

```

<210> 1846
 <211> 341
 <212> DNA
 <213> Homo sapiens

```

<400> 1846
gaattcgcgg ccgcgtcgac ccagtatctg ttttggagtc gtctttcatt tttaacgttg 60
tttctacagg gtatttgcca ggtcttctc ttttctttt aataattatt ggctgatctt 120
cctcctgaga ttttatggtg tcatcatcgt tctgctctgg cttttcacca gtagtttcac 180
tgctgtatata ttcatctttt tcttccatga cccttgaggt agtgcatttt gtctcagaac 240
tggtttttagg taattcttcc aaatctctgg agttctcttc ctttgtgtca tgtggctccg 300
gattgaattc tagacctgcc tccagtaaca aggacctcga g 341

```

<210> 1847
 <211> 110
 <212> DNA
 <213> Homo sapiens

```

<400> 1847
gaattcgcgg ccgcgtcgac gcttcgggga tacacacgct ggcaactcta taggacagtc 60
ttatttgata tagcataagt atgtttttta gaattcatgt tatcctcgag 110

```

<210> 1848
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1848

gaattcgcgg ccgcgtcgac cagcettaca ctaggcacac acttttagagt ctggggctcc 60
 agtggggccc gcctaatttt ttttcccccc aagacagggc cttgctctgt ctcccagget 120
 ggagtgcagt ggcatgatca tggcttactg cagcettgat ctcccaggct caagcgatcc 180
 ttctgctca gcctctctgg tagctgagac tgcagccca gctccaaatc accttgattc 240
 atatcagcag taataatcac ttgtgttctg aaagaaaggg caccagaagt tctagcaaaa 300
 ttcagttgtg ttctgtgagc tagcactttt tcctctgacc cctgcctcga g 351

<210> 1849

<211> 414

<212> DNA

<213> Homo sapiens

<400> 1849

gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcccgtgg agagcacagc 60
 tcccacttct ttggaccccg tcttctcttc caccaagagc cattcgagc ggagccccct 120
 gctggccacc ttgagttctg tgcctgggtgc gccggagccc tgccctcagg attgcagccc 180
 tgcctcacac ccgctgcacc ctcccttgtg catttcaaca ggtgccactg tcccctactt 240
 tgcagagggc tccggggggc cagtgtccac taccagcacc ttgattcttc ctccagagta 300
 cagttcttgg ggctacccct atggtgagtc gacagccagg gcttggcagg gaggggacgc 360
 caagagcccc acgcagacc tgctttcttc ccgcagaggc cccaccgtct cgag 414

<210> 1850

<211> 359

<212> DNA

<213> Homo sapiens

<400> 1850

gaattcgcgg ccgcgtcgac gttgggatgt ctatattgct gctgcagtc ctaccgctgg 60
 aaacggggag aaccctcggg gggaggetgt tgctggctc tagcgcttct atctaagctg 120
 cccaggggtg tggcccccct tagtcttttg ctccggcagc gcttccatcg ggtcacccga 180
 aactccact cgaccatcaa cccaaacaga gaacgtgaaa gctagagtc cttcaacagg 240
 ttcttaaaga taaaggctaa actctagagt ggtggtagaa gatgagttgg ttcagcatgc 300
 tatggggtaa gtaagcttgt caccgagggc tacaggcgct tcctgggaag gacctcgag 359

<210> 1851

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1851

gaattcggcc aaagaggcct agagaggttt aaatgagtct ggctgggtgt aagtcagatt 60
 ctttatggctt tcttctaatt ttgaaggctg ttctaattgc attttcttta agtctgttag 120
 taattcttca gaaagatctt catcaccatg aattttgaaa gtaagatcac tggcactaat 180
 agagcgacgt aattttgtac acttggaaaa agatgtgtga aaacatttag caaattttgg 240
 atcttgaaca tcaggcataa tttctgttgg agatgtaaat ggggctctcg ag 292

<210> 1852

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1852

gaattcggcc aaagaggcct aggaaaaacc tttgataatc ttgttggcaa aaatgcgtat 60
 ttttttgatt actagttagt ttatttattt atttttttat ttttcgagat cgtgccactg 120
 cactccagcc tgggcaacag agcaagaccc tgccaagaga aaaaaaagac tgtgtctttt 180
 cacattccac caatatactg atagcatctg tctctctgca aatctcgag 229

<210> 1853

<211> 288

<212> DNA

<213> Homo sapiens

<400> 1853

```
gaattcggcc aaagaggcct acgaggggtg agaggaatgg aaagcagtgt cccttttgag 60
aaggcaaatt tacagctggc ttttgtaatc ctactgtatt tttgtttgtt tgctaagtct 120
ttgatagtcc ccagtgtggt ttgtctgcca gtgatctcag caccaccaga gagcttggtt 180
gaaatgcggc atcccaaccc caccacagcc ctcccaagtc agatactgcc acctcacgag 240
gccccccagg gatccacaag ttcattaaag ttccaggaat ccctcgag 288
```

<210> 1854

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1854

```
gaattcggcc aaagaggcct aatagaagtg agcaaaacaa aaatcccgtt ccttggtggag 60
cttgatattt gatgagaagg aggaattcaa attttaaaact tctgttaaac gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttgctgt tgcccatgct ggagtgtctg 180
ag 182
```

<210> 1855

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1855

```
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagctt cctgggtctc 60
cacatgctgt tcatcactct cctcctcttt acctggatgc ctctgtcctg tgccctccga 120
cctccactga gacaatgtca cctccaggaa gtgccctcga caatcctctc ctcccacaat 180
acctgtctcc gactcgag 198
```

<210> 1856

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1856

```
gaattcggcc aaagaggcct agacattcct tgtgacttgg aagtttacaa tcatcatcct 60
tttttttaag gactctatct ttcttttctt ttaaattcct ttctctcttc tttttgtctg 120
cttcgtgtct tgaagccctt tggatgttac cagttagcaa agcaaaaatg gcctcatctt 180
tattttccat tcttttctta atttttatgt ttcttcttct acatcctatc ccgctcgag 239
```

<210> 1857

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1857

```
gaattcggcc aagaggccta gtgcattgag gttgcaggta tacagtcacc aaagaacctg 60
aaataattgc cggaatgata tcctctaaaa gatgtgagcc tctcagagag agagagagag 120
ggttcctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc gggtccagcc gtgtcaggga gactcgag 218
```

<210> 1858

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1858

```

gaattcggcc aaagaggcct acttcctttt cccctaagt taataggaca gagatatcat 60
atccttttct ctattctttg ataattcctc cctgtttttt tccctttctt tttctagaac 120
tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
atcttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat cttccaactc 240
cgctcgag                                     248

```

<210> 1859

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1859

```

gaatttggcc aaagaggcct aactttttca acctctatct cttacttctt gcctgctctc 60
agtttgttcc cgaatgaga cttggtgcac tctataccta ctgggttccc ctgggttccg 120
tgctggccgt cactgtcatc cgtgaggcgg tggaggagat ccgatgctac gtgcgggaca 180
aggaagtcaa ctcccaggtc tacagccggc tcacagcacg aggcacagtg aaggatctcg 240
ag                                     242

```

<210> 1860

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1860

```

gaattcggcc aaagaggcct agccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attggtttcc 120
cttgagtttt tgctaaaaca aatcttagta gttttgcccg tttaaaacaa ctcacaatcg 180
taaatgtctac tattcctaag atatctcgag                                     210

```

<210> 1861

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1861

```

gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcattct 60
tgccctgatc agaatttggg actacaataa atctcggata cattccttcc gaggcgtgaa 120
ggacatcaca atgctgttag acaccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcggggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag                                     253

```

<210> 1862

<211> 485

<212> DNA

<213> Homo sapiens

<400> 1862

```

gaattcggcc aaagaggcct accaagttcc aatttttagcc ttacaaatta ctaatttact 60
gcttctctct ctctaagcct cagctccctg atctagacca tgagatttac agtaggagag 120
taccatgttt atccccaat acttaacagc tagggttttc ccagactgaa taataataat 180
aactttttta aaattcagaa ggtatcttca agttcttggc ttgcttcttg tacattcaat 240
atcaaagaag agaaaacaca ctatctgaga gtacttccca tgcacctaat aagtgccaaa 300
gccacctggt gctagagccc ttcacccaaa tgagcatcag ccttgctttc agaaagcagg 360
gaccacatat atatgattta aaaaaaatct gcgatcaact tttctctaaa aaacccaaat 420
atgctggggc acagaaagat caatgcaaaa gcaaaacatc ctgtgacctg cctaaccccc 480
tcgag                                     485

```

<210> 1863

<211> 343

<212> DNA

<213> Homo sapiens

<400> 1863

```

gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atattttaat aatgtataat attttgtcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttcaactgt 180
caataatggt gcaatacata tctttttgag agataggggt ttaaattttc tttattttga 240
aataagttct aggttagagc cccaggatgg gattagttgg tggaaaatta agaatacctaa 300
tgcaactgaag actcctattg aaaccaagag caagatactc gag 343

```

<210> 1864

<211> 258

<212> DNA

<213> Homo sapiens

<400> 1864

```

gaattcggcc aaagaggcct aggtagttag aagtcgagag tcagtaattt tcttacttaa 60
tattgtgggg atcttactta atacataaag ttaatgaaac tagaaatagt ggtttaatat 120
attacttata attcaaaaat taacctatat ttacagatgc ttacacagtt tctttgtgaa 180
tccacctatg gttttatttt aattaatttt ttattgcaa gcaatgaaat gttgctttgt 240
ggagccagaa agctcgag 258

```

<210> 1865

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1865

```

gaattcggcc aaagaggcct atgaattcta gacctgcctc ttataagcca cattcctgct 60
gttctcctgc actcttctga ttctgtatct ttacatctag attattttta cctcctaggt 120
tctttccctc ttcattacta ccttataaaa atacatccat tcttcaaata ttttcccaat 180
ctcccagtaa gaattagcct ctctcaatgc tgggtgcagt gctcattcct gtaatccag 240
cactttggga agccgagyc aagcagattgc ttgaaccgt gagtctcgag 290

```

<210> 1866

<211> 305

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (16)

<400> 1866

```

gaattcggcc aaagangcct acgaggaatg tggatatctg actagattaa aaggttaaag 60
aactgtttta agttggataa gataaagaca aaggtttaag caagttgtgg aagggtgatt 120
gtaaaggaaa ttctgtgtgt aaacatactg gctgtagtta aaaaggggat tgtccagttt 180
ttctgtaaat tgagcattaa aataaaagca caatgggttt ctcttacagc actatcctgc 240
tttttttttg cttttttttt tctttggaga cagagtctcg ctctgttgcc caggctgggc 300
tcgag 305

```

<210> 1867

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1867

```

gaattcggcc aaagaggcct actcatcagc tttgatgatg agatcgatgt ccaccaaggg 60
cttgctctgc agaactggaa ctgggggggt ggctgggggc ccttctccca gtgacttgta 120
tgctttggct tgtgatgccc ctgcgagtag gggaggggtat ggggtgagtc cttccttgga 180

```


ggtcaccttg agtctgttct ca

202

<210> 1868

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1868

gaattcggcc aaagaggcct agtaatttcc ccttgaaaat tcctagtcac tccctctgtt 60
cctccaaatc taattgctga taaatccctt tcagggtctct cttctataaa gtcttccaaa 120
acccagatag ccaaccacaa cccaccatcc ccttgaaatc ttgttgctct catccatgcc 180
acacatctgg aatttgctat atctactggt atttgacatg tataaaatct atttctgccg 240
ggcgctcgag 250

<210> 1869

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1869

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctttgtggc tacagatcaa 60
aaattcatac tgaaaaagat atttgtcatt taacatggaa cttttccaat acattttaag 120
aggcatactc gag 133

<210> 1870

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1870

gaattcggcc aaagaggcct agagaacaca gccagcaggt gcctataagc aagaaagtgg 60
gtctcaccac gccatcgaat ctgctgggtc attgattgca gacttcccag actccagagc 120
tatgagacat aaatttctgt tgtgtataag ccatacagtc tatggtattt tgttacagca 180
gcctgaaggg actaagacac cttcctgttt tacagacaag atgcccacaa caccacaact 240
cgag 244

<210> 1871

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1871

gaattcggcc aaagaggcct attcaaatat ataggctaac tgcgtatatc ctcattagtt 60
catatcagtc tagttaatag caacgttagc caaattttta aataaaaaata actacattta 120
gaaagtgatt tattttcttt tcttttttct tttcttttct tttcttttct cttttcgtga 180
gatgggggtct cgctctgtca cccaggtgct agtgcagtgg caccgtctca gctcactgca 240
acctctgact cctgagctcg ag 262

<210> 1872

<211> 418

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (48)

<220>

<221> unsure

<222> (65)

<400> 1872

gaattcggcc aaagaggccc acctaaacct tctccactaa acgtcgttag gccctcagtt 60
ctagnacgag tcataacctga ttcacctgca ctgcttcccc cgtgtgctga gcatagagca 120
tacaatagcg cctacttcac ggaaacttgt gcctttaaac ttgttaaact taaacacagc 180
cgagaagttg cttctttgta cttttcttac ttttctact tttttgtaga aaaaaaagat 240
aatgcctctg cttctatttc tctgggggtg ggggtggggg ccgggagccg tcgcagaccc 300
gtttcatgca gcgtctccct cggcaccgag ttcggaggac gcacctcac tccctctctg 360
ccttcaactcc tttctgacca agcaacgcta acttttctac agatcgattt gactcgag 418

<210> 1873

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1873

gaattcggcc aaagaggcct aaatttagcc ataagactaa ataataagat gccactattg 60
tatttgaacc attctgggtt cttttctctt tcttttaaat cgcaaagtgc agctatgtca 120
gtattcctgc tctctgctct gttggcagta ttaaaatcaa ctttaccctc cgag 174

<210> 1874

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1874

gaattcggcc aaagaggcct aaggagccag cttatcagtg tggagaagat tgcagctgca 60
atttgcctgt tagtctctgt tcttttaacg ctttctgaa gtgccatttt gtctcggtta 120
aatgctccct gaaaatactc aaatattttt agttgtagag tacaatacag attgagctgc 180
acatttccct ggtgagcaaa agtgatgagt ttgtgttcat taactcgag 229

<210> 1875

<211> 191

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (90)

<400> 1875

gaattcggcc aaagaggcct agtcatttcc tgaggatggt ccagtggctt agtgcgtgtg 60
tgtgtgtgtg tgtgtgtgtg catgtgtgtn tgtgtgtttt aataaattgg aagcaagaac 120
atttgatggt catgaagtta cacttattta ttacggaaaa caaaaagaca gctttacatc 180
ataacctcga g 191

<210> 1876

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1876

gaattcggcc aaagaggcct actgagcctc agttttctct tctgcatagt gagactaaaa 60
tagtactgcc ccattgtggtt gttgggaaga cgccataaga taatagatgc aacatcttag 120
tgctccagct gagcgttagt ttatgcccag ctggcactgt tgggtgtaac tgcgtatttg 180
ttgtatgact gtcacttcga cagctgttac cctccttgag ggcagagact ttgtctcagt 240
cacataaaca tttgatggaa agaaggtaaa tctcgag 277

<210> 1877

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1877

gaattcggcc aaagaggcct atttcaagat tgttaaattg agacaagtaa ttgaataatt 60
 tgtccctattt ttatttttaa aaaagtgaat ggactgaaat gttaaattgt aatgtacatt 120
 tcttaattgc aacttttcta ctgagtgttt gcactatact ttctggaatc ttatttaaca 180
 aaaataataa aggggaagctc gag 203

<210> 1878

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1878

gaattcggcc aaagaggcct acccacgggt cccaagggtgc ccttctgtgg accaggcgag 60
 caggttcacag gccctgattc cctgaccctg ggggacgaca gcacccgtag cctggacttt 120
 gtgtccgagc cgagcctgga cctccctgac tatgggccag ggggcctgca tgcagcctac 180
 ccgccatccc caccgctcag cgcctctgat gccttctcgg gcgctttgag ctccctgagc 240
 ctcaaggcct cgag 254

<210> 1879

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1879

gaattcggcc aaagaggcct aggaagataa gtgtgtgtat agatttttta aagattgggt 60
 tataaattga taattgttaa agtaggttga taggtatatg ggagtttatt atactatccc 120
 acttttacgt gtgtttgaaa aaattttttt taaatcgttg tttttttccc ccttttgctt 180
 tctaggattc ttacagaagc agagattgat gctcaccttg ttgctcgag 229

<210> 1880

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1880

gaattcggcc aaagaggcct aaatgaatgt caaaggaaaa gtaattctgt caatgctggt 60
 tgtctcaact gtgatcattg tgttttggga atttatcaac agcacagaag gctctttctt 120
 gtggatatat cactcaaaaa acccagaagt tgatgacagc agtgctcaga agggctggtg 180
 gtttctgagc tggtttaaca atgggatcca caattatcaa caaggggaag aagacataga 240
 gctcagag 247

<210> 1881

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1881

gaattcggcc aaagaggcct acttcctttt ccccctaagt taataggaca gagatatcat 60
 atccttttct ctattctttg ataattcctc cctgtttttt tccctttctt tttctagaac 120
 tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
 attttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat cttccaactc 240
 cgctcgag 248

<210> 1882

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1882

gaattcggcc aaagaggcct acaggtgtac accaccacat ccagtttata agctttttct 60
 tattaaaaaa agtttttttt ttttaagttt ctgttaaaaa ctaagacaca aacacataca 120
 ttagcctagc cccacacagg gtcattgatg tcagtatcac tgtcttctac ctctctcgag 179

<210> 1883

<211> 206

<212> DNA

<213> Homo sapiens

<400> 1883

gaattcggcc aaagtgccta cacgtatatt ttcaaggact cactcttaga aacaaaaatg 60
 tcatactttc atacttcatt ttgtggttgt cttacatttt tttttttttt ttttttttct 120
 ctaattttaac ctttatggaa gctttaaagt tttgtcaaaa catgagtgct ttgcccatca 180
 gtgaatggaa tggaccgatg ctcgag 206

<210> 1884

<211> 193

<212> DNA

<213> Homo sapiens

<400> 1884

gaattcggcc aaagaggcct actatacacg aggcaccagg ccaactccag tgacaacaat 60
 ttgcaaatct caagcactga tctccagtgt gtgcttgatc tgggtgtgtgt gtgtgtgtgt 120
 ctgtatatac attcccagga gcacacacat ggacaagtta ctacagcccc cgctcccaag 180
 tccaccactc gag 193

<210> 1885

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1885

gaattcgcgg ccgcgtcgac cettgcaggc attactaaat cgcttccttc acccaaaaca 60
 tatcatggcc atgagttgtg actgccaaag aatgtgcett gctagtttga agatgcagtt 120
 gatttttatta ttttattatt ttattttatt ttttgagaca gagtgcaca ctgtcgccca 180
 ggctggagtg cagtggcagc atctcggtct gctgctgggt ctgcctcccg ggctcgag 238

<210> 1886

<211> 715

<212> DNA

<213> Homo sapiens

<400> 1886

gaattcgcgg ccgcgtcgac cacatgaact gagcaaatga gatagaaaca tggcattctt 60
 aattatacta attacctgct ttgtgattat tcttgctact tcacagcctt gccagacccc 120
 tgatgacttt gtggctgcca cttctccggg acatatcata attggagggt tgtttgctat 180
 tcatgaaaaa atgtttgctt cagaagactc tcccagacga ccacaaatcc aggagtgtgt 240
 tggctttgaa atatcagttt ttcttcaaac tcttgccatg atacacagca ttgagatgat 300
 caacaattca acactcttat ctggagtcaa actgggggtat gaaatctatg acacttgtag 360
 agaagtcaca gtggcaatgg cagccactct gaggtttctt tctaaattca actgctccag 420
 agaaactgtg gagtttaagt gtgactattc cagctacatg ccaagagtta aggctgtcat 480
 aggttctggg tactcagaaa taactatggc tgtctccagg atgttgaatt tacagctcat 540
 gccacaggtg ggttatgaat caactgcaga aatcctgagt gacaaaattc gctttccttc 600
 atttttacgg actgtgcccc gtgacttcca tcaaattaaa gcaatggctc acctgattca 660
 gaaatctggt tggaaactgga ttggcatcat aaccacagat gatgacgtcc tcgag 715

<210> 1887

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1887

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gaattcgcgg ccgcgtcgac attgaattct agaccatggc cctgtgcttt gtcattctct 60
ccttctgcag cctcctgctg tttatctgtg ttggaagaaa tgtgctcact ctgttactct 120
tcattgcaag agcgtttatt tctggaggct ttcaagcggc atatgtttac acacctgagg 180
tctacccac ggcaacgcgg gccctcggcc tgggcacctg cagcggcatg gcaagagtgg 240
gtgctctcat cactccgttc atcgcccagg tgatgctgga atcctctgtg tacctgactc 300
tggcagttta cagtggctgc tgcctcctgg ctgccctggc ctccctgctt ttgcccattg 360
agaccaaagg ccgaggactg caggagtcca agccactcga g 401
```

<210> 1888

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1888

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gaattcgcgg ccgcgtcgac ctctatctca aaaaagtaaa aataaataaa taaatttcct 60
gttttaattt ctaatgtgat aaatataata ggtatgtgcc actgcactcc agcctgggtg 120
acagagggag attccatctc aaaaaaagta aaaataaata aatttcctgt tgtaatttct 180
aatgtgataa atataatagg tataatgcat gttaactaaa gcattttaga gtctcagtag 240
gtctcgag 248
```

<210> 1889

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1889

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gaattcgcgg ccgcgtcgac ggatatttgt ttttttgggc gcgacacaaa tcgagggtgag 60
ggaagagaga ggaaaatccc ctgaatccct gcaggattaa tttattcaaa aaggaaataa 120
aaaatactca atatgcaaaa gtcttgtgaa gaaaatgagg gaaaaccaca gaacatgcca 180
aaggccgagg aagatcgccc tttggaggac gacgcactcg ag 222
```

<210> 1890

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1890

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gaattcgcgg ccgcgtcgac ggattataat cttctggacc acctttgtat atatagtcct 60
ttcaggtcac atggctcagg actgtagttt gaaccatagt ttctcatttt ttttgtttgt 120
ttgttttttg agacagagtc tcgctgtgtc gcccatgctg gagcgcagtg gcgcgggtgtc 180
ggctcgctgc aacctctgcc tcccgggttc aagcgattct cctgcctcag cctcccagtg 240
ggctgggatt gcgggcgcgc accaccacgc ccggataatg ttttgtattt tggtagagac 300
gggggtttcac catgcgctcc aggctggtct cgaactccca acctcaggtg atccactcga 360
g 361
```

<210> 1891

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1891

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gaattcgcgg ccgcgtcgac gccaaggact taaatccagg actaccagct ctaaggctgg 60
ctctgccttg gagtatttgt gtatttagaa catttacatt taatgtaatg attgagatgt 120
tagggcttaa gtccaccatt ttatttatta ttttctcttc cctctccctt ctgtcctcac 180
cctgttatcc tcagagggag aaaacacaga agagaggcac aaagctcgag 230
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<210> 1892

<211> 224
<212> DNA
<213> Homo sapiens

<400> 1892
gaattcggcg cgcgctcgac attcctaaaa ttctaagggt ttatgatctc tgcatagata 60
agtatctttt gatctgaatg aatcaaatag aagatctttc tttctttctt tctttttttt 120
tttttttttt tttttttttg agacgggggt ttgctcttgt caccaggtt ggaatgcagt 180
ggtgctatca cagctcactg cagtctcaaa ttcttgact cgag 224

<210> 1893
<211> 709
<212> DNA
<213> Homo sapiens

<400> 1893
gaattcggcc aaagaggcct aatctaattg cgatgtagtt aattggcttg gtgtgtttat 60
ggctctttat cctaaagtat atattttaagt acctaaaagg atcagttaat ttttttttct 120
ttgagttgtt tctggaaaat tgtgtagaat aaaaatatct caaaatatat gtgtccttta 180
atattaaagc acttttgtaa agtatataac atttccttgg ttgctacttt atcacttttt 240
aagggggatc tgttgctttc cattactaga tttttaagaa ttatactcta ttaattggct 300
tttaaaaaac tctaactatt tatttgcaga ttaataagag gagtatagaa aaatttgta 360
aacatatttt caagtgtttt cctctccctt atcactatgc acaagagtgt tcacatatat 420
aggcactata tatactattt gttggatggc tgttggaaat ggtgggtaag tggatgagta 480
aataatatat tcagatttgt tgtatattat atacatgtaa tacaataaa aacaaatatg 540
tatatatatt gtgtgttttg aatactttgg ttaagtggct tccaaagtat gtgctataaa 600
aaccttctgc acaaaaaggt ctccatagcc aaatagattt ggaaatgtga tatattattt 660
ttatgtcaag aaattcttaa tatagattaa cacgttaaat attctcgag 709

<210> 1894
<211> 578
<212> DNA
<213> Homo sapiens

<400> 1894
gaattcggcc aaagaggcct attgaggaac tgtcctacag tgggaagagac tatgtacgaa 60
ctgggtgcag tgcagtgatc ttttttgtca taatgttatt ggggcaactg atgaaaactt 120
gaatgggggg gtctctggat tctttgtatt atatatagga gttctttgta ttattgttgg 180
aactttatta caagtttgca atgatttcaa catagaaaag gataccatta agagaatgga 240
aagcaacagc aaaatcctga tggaaagggg ccagtagcga gggaaagact aaaaagagtt 300
agaaagcagg gaggtagttg agagggcaag gtctctggga ggtaggagat aagaagagga 360
tggattcact ttgggatggg gggctctgtt ttcgttgtaa tagtggtgaa agataacaca 420
tgggaggaaa ggatgcagct tgaggatgga ggtaattttg aagggtctta ggaccattta 480
aagtatattt tctttctata agactggcaa acacttttgt cagtggagtt ttagggtgaa 540
aaagtaagcc tgagaaagaa agctagggag tgctcgag 578

<210> 1895
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1895
gaattcggcc aaagaggcct atgattttcc aatattaccc atattttttt gctagtattt 60
tttagtaaag aagagcttca tctctctccc accttgtag taacactgtg gactcctgga 120
ttttctttca gttcagtgat taccattcag tgtgttgta tggacatcac tgtgctattt 180
gatgcactaa ttgtcccaaa tctgacgatg ggagcccttt caagcttget tttctgttct 240
tttgcgcact cactcgag 258

<210> 1896
<211> 423

<212> DNA

<213> Homo sapiens

<400> 1896

```

gaattcggcc aaagagacct acgggcatgg tagcaggtgt ctgttatccc agttaggagg 60
ctgaggcaag agaattctctt gaacctgaga ggcggagggt gcagtgagcc aagatcgcc 120
cattgcactc cagcctgggg gacaagagt agacttagtc tcaaaaaaa aaaaaaaag 180
aaaaaaaat cagggatata gtcatatcc cacttctttg tttacaccga tgtccctgaa 240
tatcagcctg tagctaattg acttgggatt tctggtctaa gtgggcctcc tggggatggg 300
gtggtacact gagcttctga gcctcattgt agagtagaaa ggtactgggg cctgtgtggt 360
aagccttggt gaaatgctct ggtattcagt attgccttaa taaacttcac ccagcaactc 420
gag

```

423

<210> 1897

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1897

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gaattcggcc aaagaggcct aatagaagt agcaaaacaa aaatcccggt ccttgtggag 60
cttgtatttt gatgagaagg aggaattcaa attttaaact tctgttaaac gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttgcctgt tgcccatgct ggagtgcctg 180
ag

```

182

<210> 1898

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1898

```

gaattcggcc aaagaggcct attgaaacag acgtctgcaa acagaggact ggttttacca 60
tyttggccca gctggtcttg atctcgtaa catggtttta ccatgtttgc caggctggtc 120
ttgatcttgt gacctcaggt gatccgctg cctcggcctc ccaagggtgt ggggtttata 180
ggtgtgagcc accgtgcctg gctgaagtgt acatgtgttt aaatgagatg ctgaaagatg 240
aaaagaaggg gtgcatgaac aagagtgggg ctgggctcga g

```

281

<210> 1899

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1899

```

gaattcggcc aaagaggcct atgaagatct ctattcctat gtgtctcagc ttggggctgg 60
tgggactttc cttctgtggg gcggatgtgg gtggcttctt caaaaaccca gagccagagc 120
tgcttgtgcg ctggtaccag atgggtgctt accagccatt cttccgggca catgcccact 180
tggacactgg gcgacgagag ccatggctgt taccatctca gcacaatgat ataatccgag 240
atgccttggg ccagcgatat tctttgctgc cttctgtgta caccctctta tatcaggccc 300
atcgggaagg cattcctgtc aagctcgag

```

329

<210> 1900

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1900

```

ggggattaca ggcattgagcc accgtgcccc gcctgcatec attatttctt atcagatatt 60
ctgcgttctc ttctttttgc tcgctgccat tgccttactc tccaggctgc ttcattctcat 120
agactattgt cacagccatg tcaacttccc caggccactc gag

```

163

<210> 1901

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1901

```

gaattcgcgg ccgcgtcgac cgaagggctt gaaaccaca cattcgtctt aaattttctg 60
aaatttattt acttgtttta aatatgatga taagagccgc ccacctgcat gggtttgtgt 120
ccctgctttt aatgtggatt tatgccactg atctgcattt tggacatcat aagaaatact 180
gctgtgcttc ccctacaccc acccaactcg ag                                     212

```

<210> 1902

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1902

```

gaattcgcgg ccgcgtcgac cctaaagtta ctgtgacct tgaagcattg ttaaagacta 60
atgtcctctc ctccactggt gaggtgggt gcttctggag gctactttgc actcttcctc 120
ttctcctttt tccgcacttc tccacccttc ccacatttac agccagaatc aacattccct 180
gggccccatc tcgag                                             195

```

<210> 1903

<211> 275

<212> DNA

<213> Homo sapiens

<400> 1903

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gaattcgcgg ccgcgtcgac ctgcaaacga tcaatctttc ctttaatagg tttaaaatgc 60
tacctgaagt tctatatcgt atcttcacac ttgaaacaat tctgattagt aataatcagg 120
ttggatctgt ggaccctcag aaaatgaaga tgatggaaaa tctgaccacg ttggaccttc 180
aaaataatga cctcttaca attccaccag agctcggtaa ttgtgtaaac ttaagaacat 240
tactactgga tggaaatcca ttccgacatc tcgag                                     275

```

<210> 1904

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1904

```

gaattcgcgg ccgcgtcgac gcagattgta cagaaagcta ccctagagtc cctgttggtg 60
gggaattgcc aacgtatttt ctgcctccgg aaaacaaagg actcaggatc cacgaactca 120
gcagtgatga ttattctaca gaagatactc gag                                     153

```

<210> 1905

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1905

```

gaattcgcgg ccgcgtcgac caggatatca agtttacaac aatactaagt agtcttcagg 60
gctttttgga gagagtttta gacatcatag aagaacaaat taaatgecta aaggacaatg 120
aatctacttg tgttgctgac catatcaaca tggttttcaa aatacagcgc cctcgag   177

```

<210> 1906

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1906

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gaattcgcgg ccgcgtcgac ggtatctgta tatctttcct tttgtttaca actgttaaaa 60

```


aacctcaaaa tagttctctt caaaagaaga gagattccaa gcaaccctac tttcttcagt 120
atgtatgttc tgtacatact tatcggtgcg ctcgag 156

<210> 1907

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1907

gaattcgcg cgcgctcgac acaccccttg cctcttaaat cacagctcaa gaattgaccc 60
tggatcctat ccgcatactc tccagcctct gtctgtgac actaacatac cctccctcat 120
gcatgtattc ctgtcattgg ggatactctg tgtacatgct tcatttgtct acatcatgat 180
ctacttccta caacatctcg ag 202

<210> 1908

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1908

gaattcgcg cgcgctcgac gatgcaagga catacgggac ggattataaa gtctctgtgc 60
ttcatcagtc ttctcttctt gttgctgcac atcattttcc acatcacgtt ggtgagcctt 120
gaagctcaac atcgtattgc acctggcacc ctcgag 156

<210> 1909

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1909

gaattcgcg cgcgctcgac ctggattaca aggaattctt tgtagaaaat atcttgaaca 60
ttttttgcct ttcttagtaa gtttgcccaa ttataaaagt tacagctttt gggccagatg 120
tgggtggctca tgcttgaat cctagcactt tgggaggtcg aggcaggcgg atcactcgag 180

<210> 1910

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1910

gaattcgcg cgcgctcgac gatacttgag gtaagaaacg ttttactat gactgcgaaa 60
gagggaaagaa agaaatcgat ccgtgtcttg gtggctgtgg ggaacggaaa aggagctgca 120
ggtttttcta ttgggaaagc tactgatcgg atggatgctt tcaggaaagc aaagaacaga 180
gcagttcacc atttgcatca tatagaacga tatgaagacc atacaatatt ccatgatatt 240
tcattaagat ttaaaaggac gcaatctccg tcgattgaat tctagacctg cctcgag 297

<210> 1911

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1911

gaattcggcc aaagaggcct acaggagttg tgagtttcca agccccagct cactctgacc 60
acttctctgc ctgcccagea tcatgaaggg ccttgagct gccctccttg tctctgtctg 120
caccatggcc ctctgctcct gtgcacaagt tggtaaccaac aaagagctct gctgcctcgt 180
ctataacctc tggcagattc caaaaagtt catagttgac tattctgaaa ccagccccc 240
gtgcccgaag ccaggtgtca tctctctaac caagagagcg cggcagatct gtgctgacct 300
caataagaag tgggtccag 319

<210> 1912

<211> 635
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (460)..(461)

<400> 1912
 gaattcggcc aaagaggcct agaagagcaa gcgccatgtt gaagccatca ttaccattca 60
 catccctctt attcctgcag ctgccctgc tgggagtggg gctgaacacg acaattctga 120
 cgcccaatgg gaatgaagac accacagctg atttcttctt gaccactatg cccactgact 180
 ccctcagtgt ttccactctg cccctcccag aggttcagtg ttttgtgttc aatgtcgagt 240
 acatgaattg cacttggaac agcagctctg agccccagcc taccaacctc actctgcatt 300
 attggtacaa gaactcggat aatgataaag tccagaagtg cagccactat ctattctctg 360
 aagaaatcac ttctggctgt cagttgcaaa aaaaggagat ccacctctac caaacatttg 420
 ttgttcagct ccaggaccca cggaaccca ggagacaggn nacacagatg ctaaaactgc 480
 agaatctggg gatccctgg gctccagaga acctaacact tcacaaactg agtgaatccc 540
 agctagaact gaactggaac aacagattct tgaaccactg tttggagcac ttggtgcagt 600
 accggactga ctgggaccac agctggacac tcgag 635

<210> 1913
 <211> 364
 <212> DNA
 <213> Homo sapiens

<400> 1913
 gaattcggcc aaagaggcct acagcatggt gtgtctgaag ttccctggag gtccttgcatt 60
 ggcagctctg acagtgcac tgatggtgct gagctcccca ctggcttttg ctggggacac 120
 ccgaccacgt ttcttgagc aggttaaaca tgagtgtcat ttcttcaacg ggacggagcg 180
 ggtgcggttc ctggacagat acttctatca ccaagaggag tacgtgcgct tcgacagcga 240
 cgtgggggag taccgggagg tgacggagct ggggcccgt gatgccagt actggaacag 300
 ccagaaggac ctcttgagc agaagcgggc cgcggtggac acctactgca gaacaactct 360
 cgag 364

<210> 1914
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 1914
 gaattcggcc aaagaggcct aggcgtaatc tgtcataatc ttcttgtcca gctgtatccc 60
 ataagcccag attcaccggt ttccatcta ccataacatt ggcagaataa ttgtcaaaga 120
 cagtagggat atattctcca ggaaatgcatt tggttgtgg 159

<210> 1915
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 1915
 ggaatcggcc aaagaggcct agtttttggg cgataggaga aatcattatc ctttatttgc 60
 agccattcca cccacctat ggttttcttc tccttcttct ttctctgtca ggagagtctt 120
 tgtcatgctg agcttcttca tttgtatggc atttatattc tagcactgtt ttattattgc 180
 ctctgtatc agcatgttca acattttctt caaatataac acaggtccct agagtgtctt 240
 catactcccc agcaaagaca cagctgtcca cttgcagaat gggcctctca gtgtcaatgc 300
 ccaaaacctt gcattttatt tcacattttg agaggaagtc tgaatcaata attcctgata 360
 attccaccag aaccaactgc tccttctctt cctcgtcttc tccgtcctct gggactccgc 420
 tcgtccgcgc ccgcgcgcct ggtccgcgcg cgcctcgtag cctctttgcc 470

<210> 1916
 <211> 402
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (128)

<220>
 <221> unsure
 <222> (288)

<220>
 <221> unsure
 <222> (317)

<220>
 <221> unsure
 <222> (336)

<220>
 <221> unsure
 <222> (368)

<220>
 <221> unsure
 <222> (375)

<400> 1916
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 tccagggnag ggccactcca gagaattacc tttccaggg gacggcagga atgctacgag 180
 tttaatggga cacagcgctt cctggagaga tacatctaca accgggagga gtccgcgcgc 240
 ttcgacaccg acgtggggga gtccggggcg gtgtcggagc tggggcgnc cctccggag 300
 tactggaaca cccagangga catcctggag gagaancggg cagtgccgga caggatgtgc 360
 agacacantc acganctggg cggggccatg accctcacag aa 402

<210> 1917
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 1917
 gaattcggcc aaagaggcct atgtgcatat tgctagctca tggccaacat ttgtttacag 60
 ttgcttaaat atttgctgag tttgggcaaa tgcataagacc tgtgtaaccc aagcccgat 120
 caaagtacat gttaccacat ccccgagcc ctccctgctt cctgccattt cctgctcagt 180
 cctgcccata catatctccc agcaactgccc ctccctgtct gcacctggag cccaggagag 240
 gaggcctcag ctgagcctgc atctctaggg aagaatcctg gtcccgggat ccacctcctt 300
 cctggccctt gctccatgca gctcccaccc agtcccagatt tccctgacct tgctccctgc 360
 agtcccagct cccaccggcc g 381

<210> 1918
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 1918
 ggatgatgac gtttttacia cagctacaga cagttcttct aattcctctc agaagagaga 60
 gcaacctact cggacaatct cctctcccac atcctgtgag caccggagga tttataccct 120

gggccacctc cagactcat accccacaga ccactattct cgag 164

<210> 1919

<211> 433

<212> DNA

<213> Homo sapiens

<400> 1919

gaattcggcc aaagaggcct agacctgacc tgccatctgg agaaacctgc caaatatgat 60
gacatcaaaa aggtggtgaa gcaggcgta gagggcccct caagggcac ttgggctaca 120
ctgaacacca ggttgtttcc tctgacttta acagtgcac tcaactctcc actttcgatg 180
ctggggctgc cattgccctc agtgaccact ttgtcaagct catttctctg tacaacagtg 240
aatttggcta cagcaacagg gtggtggccc atatggcctc caaggagtaa gactgctcga 300
caaccagccc cagtgcagag acaagaggaa gaaagagacc ttcagcttct gggcagtccc 360
tgccatgctc agtccccac cactctggga atctccctc ttcacagttt ccatgcagac 420
cccacaactc gag 433

<210> 1920

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1920

gaattcggcc aaagaggcct aggggagatc tggatggcat ctacttcgta tgactattgc 60
agagtgccta tgggaagacg ggataagcgc tgtaagcttc tgctggggat aggaattctg 120
gtgctcctga tcatcgtgat tctgggggtg cccttgatta tcttcacat caaggccaac 180
agcaggcct gccgggacg ccttcgggca gtgatggagt gtcgcaatgt caccatctc 240
ctgcaacaag agctgaccga ggcccagaag ggctttcagg atgtggaggc ccaggccgcc 300
acctgcaacc aactgtgat ggccctaata gcttcctcgt atgcagagaa ggccaagga 360
caaaagaaag cagtggagct cgag 384

<210> 1921

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1921

gaattcggcc aaagaggcct accaaaaaag aacaattttt ttttttaaag tagccagggtg 60
tggtctgggtg cagtggctca cacctgtaac cctagcactt tgggaaggctg aggcggggcg 120
atcacttgag gccaggagtt tgggaccagc ctggccaaca tggcaaaacc ccgtctttac 180
tgaaaataca aaacttagcc aggcattgtg gcgcacatcc gtggtcccat ctactgggga 240
ggctgaggga ggagaattgc tcaaacttgg gaggcgggag gttgcggtga gccatgatgg 300
caccactgtc ctccagcatg ggcaacagag caagaacctg tctcaaaaga aaacaaaacc 360
aggtgtgatg gcactcgag 379

<210> 1922

<211> 491

<212> DNA

<213> Homo sapiens

<400> 1922

gaattcggcc aaagaggcct aagtttatct aaatcccttc tcatcatatt tattatgtca 60
acctgtactt ccctttccct ctccctctcc ctctttctc tccctctccc tctctctctc 120
ttccttcccc ccttcagggt accctagatg aacctaggga ggtcctggct acacagccat 180
tctgtctgag agagtctgag gactctgaga ccagccttt tgacacgcac cttgaggcct 240
atggaccttg cctgtctcca cctagggcaa taccaggaga ccaacatcca gagagcccag 300
ttcacacaga gcaaatgggg attcaaggca gagggaggga gactgtggat aaagtcattg 360
gtataccaaa agaaacagca gagagggtgg gccctgagag agggccattg gagagagaaa 420
ctgagaaact gctaccagaa agacagacag atgtgacagg agaggaagaa ttaaccaagg 480
gaaaactcga g 491

<210> 1923
 <211> 524
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (248)

<220>
 <221> unsure
 <222> (299)

<400> 1923
 gaattcggcc aaagaggcct atgtgggttt gtttttttctt tccctttttt gttcctccaa 60
 acaaaaaacaa aatgcaggcc gagcgcggtg gctcacgcct gtagtcccgg cactttggga 120
 ggccgaggcg ggccggtcgt gaggtcagga gacgagacc atcctggcta acacggtgaa 180
 gccccgtctc tactaaaaat gcaaaaaatt ggctgggtgt ggtggcgggc gcccgtagtc 240
 ccagctantc aggaggctga ggcaggagaa tggcatggac ctgggaggca gacttgcant 300
 gagccaggat cacaccactg cactccagcc tgggcgaaa agtgagaatc cgtttcaaaa 360
 aaaaaaaaaa tgcattgttt ataagccctg ctgtctagaa gtattgcgtt tagccatttt 420
 gagtacagca ttaaattgag gagtggggaa gagggaaatt cacttgattt ttgctgcaca 480
 ggatatttgc caaaaataaa tgagattttc tggggctcct cgag 524

<210> 1924
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 1924
 gaattcggcc aaagaggcct agttttgttt ccccaaaata gaaagagatt ctctectatt 60
 tcctgcctta cgttggcaag aggtgatcaa ggaactgggtg tacagtacac tgaacacagc 120
 tataccttgg gatgaggtgt caggtgagca accaaggaca acccagctgc atgtcacact 180
 gtaagggaga ttccatttct ttttcttttc ttttctttt ttttctttt tctttttttg 240
 aggtggagtc tcgttctgtc acccaggctg gagtgcagtg gcgcgatctc agcttaccgc 300
 aacctctgcc tgcctgggtc aagcgattct cctgcctcag ccttctgatt agctgggatg 360
 acaggcgtgc accacgaggc caggctctcg ag 392

<210> 1925
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 1925
 gaattcggcc aaagaggcct agactgcagc tcttttcatt ttgccatcct tttccagctc 60
 catgatggtt ctgcagggtt ctgcggcccc ccggacagtg gctctgacgg cgttactgat 120
 ggtgctgtct acatctgtgg tccagggcag ggccactcca gagaattacc ttttccaggg 180
 acggcaggaa tgctacgcgt ttaatgggac acagcgcttc ctggagagat acatctacaa 240
 ccgggaggag ttctgtgcgt tcgacagcga cgtgggggag ttccggggcg tgacggagct 300
 ggggaggcct gatgaggagt actggaacag ccagaaggac atcctggagg agaagcgggc 360
 agtgccggac aggatgtgca gacacaacta cgagctgggc gggcccatga ccctcgag 418

<210> 1926
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 1926
 gaattcggcc aaagaggcct aagaacacca actgctgagg ctgccttggg aagaggatga 60
 tcctaaacaa agctctgctg ctgggggccc tcgctctgac caccgtgatg agccctgtg 120

```

gaggtgaaga cattgtggct gaccacggtg cctcttgtgg tgtaaacttg taccagtttt 180
acggtccctc tggccagtac acccatgaat ttgatggaga tgagcagttc tacgtggacc 240
tggagaggaa ggagactgcc tggcgggtggc ctgagttcag caaatttga ggttttgacc 300
cgcagggtgc actgagaaac atggctgtgg caaaacacaa cttgaacatc atgattaaac 360
gctacaactc taccgctgct accaatgagg ttcttgaggt cacagtgttt tccaagtctc 420
acgtgacact cgag                                     434

```

<210> 1927

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (308)

<400> 1927

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gaattcggcc aaagaggcct actattcaaa tccttggcct atttttaaat tgaattgtct 60
ttgtattatc aagttgtaag agttctctag ataatctcga tagaagtcct ttgtcacata 120
tgcgatttgc atgtatttcc tctctttctg tgggtgtttg ttgttgttgt tgtttgtttg 180
tttttctgag acagagtctc gctctgttgc ctaggctgga gcgtagtggg gccatctcgg 240
ctcactgcaa tctctgcctc ccgggttcaa gcaattctcg tgcctcagcc tcccaagtag 300
ctgggatnac aggtgcgcat caccacaccc agctcatttt tgtattttta gtagagacag 360
ggtttcgcca cttcagccag gctggtctcg ag                                     392

```

<210> 1928

<211> 409

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (306)

<400> 1928

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gaattcggcc aaagaggcct actcgcgggg gtttattgta cagattatnt egtcacccag 60
gtactaagcc tagtacccaa tagttacttt ttctgatctt ctccctctc ctaactcttc 120
accctcaagc aggccccagt gtctgttggt tccctttgtg tccatgaatt ctcatatgat 180
gttcttcttt cttctctctt ttcttctctt cctttctttt tctttctttt tctttcttct 240
ttctctctct cttctctctt tctcttctct tcaattgaga cactgtcgcc aaggctgcag 300
tgcagnagca ggaatctcagc tcaatgcagc cctctgcctc ccaggtttca gcgagtttcc 360
tgctcagcc tccccagtag ctgggactac aggcacacac caactcgag                                     409

```

<210> 1929

<211> 328

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (89)

<220>

<221> unsure

<222> (102)

<220>

<221> unsure

<222> (106)..(107)

<220>

<221> unsure

<222> (109)

<220>

<221> unsure

<222> (132)

<220>

<221> unsure

<222> (170)

<220>

<221> unsure

<222> (183)

<220>

<221> unsure

<222> (202)

<220>

<221> unsure

<222> (206)

<220>

<221> unsure

<222> (247)

<220>

<221> unsure

<222> (282)

<220>

<221> unsure

<222> (299)

<400> 1929

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gggatgtcaa tcatgatctn ttcatatatg ctggctatag aaattggtct cggatgaagta 60
atggncctgtc tgtcaagcat gacatcctng cctgtgttaa gnttgngnt gctctcctgg 120
gatgttgatc gngacgtctt gtccgggatt gagaagcttc tgttgctctn ctgggatgtc 180
atncatgatc tctccatata tncctgctat agaaattggg ctctgtgaag aaatagtgtg 240
tccaaancct tggtagcaggc cccctgggga gggtagcttt gnagaaccag aagttaganc 300
ttgtgaagaa gaagaaagta ggctcgag 328

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<210> 1930

<211> 378

<212> DNA

<213> Mus musculus

<400> 1930

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gaattcggcc aaagaggcct acactctctt gtagtaacag aagctacctg ctataataaa 60
gacctcaaca ctgctgacca tgatcagccc agcctggagc ctcttctca tcgggactaa 120

```

```

aattgggctg ttcttccaag tggcacctct gtcagttgtg gctaaatcct gtccatctgt 180
atgtcgctgt gacgcagget tcatttactg taacgategc tctctgacat ccattccagt 240
gggaattccg gaggatgcta caacactcta ccttcagaac aaccaaataa acaatggttg 300
gattccttcc gatttgaaga acttgctgaa agtacaaaga atatacctat accacaacag 360
tttagatgaa ttctcgag                                     378

```

<210> 1931
 <211> 272
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (184)

<220>
 <221> unsure
 <222> (261)

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<400> 1931
cccactcccg cttcttatca agctgcttcc tttctccag cctctcctgc tttagcttct 60
ccttctcctt ctccagctct ttgtttttgg tgaggatggt ggctttgctt ttaggagtct 120
ttttgttaag gatttttggc atggcatctg cccagcctga attggtccca gactcgact 180
ctgnggcgtc ttcattgtct tcctcacagg attcaacatt gtctcactg tctgcttctg 240
cagctccatc atctgagtgg ncccatctcg ag                                     272

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<210> 1932
 <211> 391
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (18)..(19)

<220>
 <221> unsure
 <222> (21)

<220>
 <221> unsure
 <222> (39)

<220>
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 <222> (44)

<220>
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 <222> (52)

<220>
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 <222> (66)

<220>
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 <222> (73)

<220>

<221> unsure
<222> (115)

<220>
<221> unsure
<222> (142)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (170)

<220>
<221> unsure
<222> (184)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (208)

<220>
<221> unsure
<222> (213)

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<222> (224)

<220>
<221> unsure
<222> (228)

<220>
<221> unsure
<222> (297)

<220>
<221> unsure
<222> (299)

<220>
<221> unsure
<222> (325)

<220>
<221> unsure
<222> (358)

<220>
<221> unsure
<222> (376)

<400> 1932

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aacagctcta tgtatgggnc nactactttg ttgtgcgna tagnctggag tntggacccc 60
cagatnccag tgntggccca gacacttccc cgctctcag taccaccacc acagnccggg 120
ccacaccct caccagaaca gntcgcctg nagacaccac tccactccgn cggggacccc 180
tcancacaca ccagtggggt gncatcanc agntgggacc tganctgnct ccagccacag 240
ctccagcacc cagtaccga aggcctccag ccccaatct gtatgtgtcc cctgagntnc 300
ttctgtgaac ccagagaggt ccgnggggtc cagtggccag ctaccaaca gggatgntg 360
gtggagagac ctggcnccaa gggaactcga g 391

```

<210> 1933
 <211> 421
 <212> DNA
 <213> Mus musculus

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<400> 1933
tagaaaaaaa aaaacaaacc ttcttactc cttaaagtga gagattcccc cccacccc 60
cccagaatc gtatattaat atctccacgt tgggaacgcg ttgcattttc ttttttaaag 120
gaatcccagc cagggacgtt ttctatttg gcattaaact tgcactgctt tgcacaagtt 180
tcgtattaaa acaactcta cctgaccgct ctgagaatta ctagtctctt ttttatatat 240
attttttctt actttaata acaacatcaa cgtttcttcc ttttaaaaac atgcactact 300
gtgtgctgag cactttttg ctctgcac tggccccgtt ggcgctcagt ctgttctacc 360
tgacgacccc tcgacatgga tcagtattat gcgaagagga tcgaggccat cccgcgggca 420
a 421

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<210> 1934
 <211> 439
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (424)

<220>
 <221> unsure
 <222> (432)

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<400> 1934
tagcagagct ttcatatcca cgtgcgttt tctggccgcc acgatactgc tgetggcgt 60
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tataaaggag gtgaatgtga gcccatgtcc caccgatccc tgtcagctgt acaaaggcca 180
gtcctacagt gtcaacatca cctttaccag cggcactcag tcccagaaca gcacggcctt 240
gggccacggc atcctggaag ggtccgggt ccccttccct attcctgagc ctgacgggtt 300
taagagtgga atcaactgcc ccattcagaa agacaaggtc tacagctacc tgaataagct 360
tccggtgaag aatgaatacc cctctataaa actggtggtg gtatggtgac atgaagtga 420
tttngagttc tngctatat 439

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<210> 1935
 <211> 374
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (139)

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<400> 1935
atgagtggaa agaatttgag caaagagagg ttgattacag cggattaaga gttcaggcaa 60
tgcaataaag tgaaaaggaa gatgatgata atgagaagag agaagatcca ggagataatt 120
gggaagaagg tggaggtgnc agtggagcag aaaaatcttc aggtcccttg aataaaaccg 180
ctccggtaca agcgcctcct gctccagtaa cagttacaga aaccccgag ccagcaatgc 240

```

ccagtgggtgt attcaggcct cctggggcaa ggctaaccac aacaaggaaa acgccacaag 300
gaccaccaga aatatacagt gacacgcagt tcccatccct gcagtccact gccaaagcatg 360
tagatagcct cgag 374

<210> 1936
<211> 364
<212> DNA
<213> Mus musculus

<400> 1936
tatgaaggaa gaacccatgg gactcccaag gcggctgctg ctgctgctgt tgctggcgac 60
tacctgtgtc ccagcctccc agggcctgca gtgcatgcag tgtgagagta accagagctg 120
cctggtagag gagtgtgctc tgggccagga cctctgcagg actaccgtgc ttcgggaatg 180
gcaagatgat agagagctgg aggtgggtgac aagaggctgt gcccacagcg aaaagaccaa 240
caggaccatg agttaccgca tgggctccat gatcatcagc ctgacagaga ccgtgtgctg 300
cacaacacct tgcaacaggc ccagacccgg agcccgaggc cgtgctttcc cccagggccg 360
ttac 364

<210> 1937
<211> 407
<212> DNA
<213> Mus musculus

<400> 1937
tagactgcct cctctcgcca taccaagccc tgagcacact cattgctggg tcctttccct 60
ccaagttttc cctctgctcg gattgatact tagaatttct tacctacgtc atagctgctt 120
tctaaaaaca gaatttttta acacctcctg tttgttctct tgggatagat taagggtggg 180
aaatgtgggc aagaaaagag atgacaaact gctctgctga agtttcatgg aaatctgact 240
tgagtgtttt tctctccatt tgctgtgttt atgtgaacag tgtgacacca tcaccaccac 300
aggctcgggt ctgtcctccc catatgctac ctgaagatgg aggctaattct ttcctctgct 360
cccgtggcat tttgtegett atccagtctt ctactcgtag ggcaaca 407

<210> 1938
<211> 300
<212> DNA
<213> Mus musculus

<400> 1938
taaagagctg cagtgttcgc gcttggtagc tgggtgcatcg gactcagctg gctttgtgtc 60
cctgaggctc accgaaaaaa actttctcag ccctctgact ccagagagag agagagagag 120
gtactttttg tggtcaccga ctttgacccc tgcaaggct gagcgatggc gtctatggga 180
ctacaggctc tgggaatctc cttggcagtc ctgggctggc tggggatcat cctgagttgt 240
gcgctcccca tgtggcggtg gaccgccttc atcggcagca acatcgctac ggcacagaca 300

<210> 1939
<211> 340
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (4)

<220>
<221> unsure
<222> (29)

<220>
<221> unsure
<222> (114)

<220>

<221> unsure

<222> (118)

<220>

<221> unsure

<222> (143)

<220>

<221> unsure

<222> (181)

<220>

<221> unsure

<222> (267)

<220>

<221> unsure

<222> (321)

<400> 1939

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tgtngctctt ctgggatgtc aatcatganc tttcatata tgctggctat agaaattggt 60
ctcgggtgaag taatggtctg tctgtcaagc atgacatcct agcctgtggt aagnttgngt 120
tgctctcctg ggatgttgat cngacgtct tgcccggtat tgagaagctt ctgttgctct 180
nctgggatgt cacacatgat ctcttcatat atgctggcta tagaaattgg gctctgtgaa 240
gaaatagtgt gtccaaaacc ttggtancag cccctctgag gaggggtacct ttgaagaacc 300
agaagttaga tcttggttag nagaagaaag taggctcgag 340
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<210> 1940

<211> 523

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (12)

<220>

<221> unsure

<222> (42)

<220>

<221> unsure

<222> (87)

<220>

<221> unsure

<222> (158)

<220>

<221> unsure

<222> (412)

<220>

<221> unsure

<222> (450)

<220>

<221> unsure

<222> (465)

<220>
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 <222> (468)

<220>
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<220>
 <221> unsure
 <222> (473)

<220>
 <221> unsure
 <222> (500)

<220>
 <221> unsure
 <222> (509).. (510)

<400> 1940
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 ctattctgtt tcggatgggt ccaccanccg cagtagtcgg agccgtaaga aactccggac 120
 cgctaaaaag aaaaagaaag gcgaggagga ggtgactnct gtggatgggt atgagacaga 180
 ccaccaggac tattgcgagg tgtgccagca agggggagag atcatcctgt gtgatacctg 240
 tccccgagcc taccatattg tgtgcctgga ccagacatg gagaaggccc cggaggggcaa 300
 gtggagctgt cccactgtg agaaggaggg gatccagtgg gaagctaagg aggacaattc 360
 tgagggtgag gagattcttg aagaagtcgg gggggaccag aagaggagga tnaccatcac 420
 atggaattct gtcgcgtctg caaggacggn ggggagctcc tgtgntgnga nanaaacctt 480
 tcttccaacc acaaccactn tctaggccnn gtggggcgaa ttc 523

<210> 1941
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 1941
 gaattcggcc aaagaggcct aatggctcgc agacactgct tctcctactg gttactggta 60
 tgctgggttg tggttaactgt ggcagaagga caagaagagg tatttacgct tcttgagat 120
 tcacaaaata atgcggacgc taccgactgc cagatcttta cactcacccc tccacctgcc 180
 ccgaggagtc cggtcacaag ggcccagccc atcacaaga caccagggtg tcccttccat 240
 ttttttccac gaaggcccag actcgag 267

<210> 1942
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 1942
 gaattcggcc ttcatggcct agcatgaagg aagaggtttg ggatatgagc aggtatgtga 60
 aataatgaat cagtatttct gtcaacttta gagagacctg ctgaaatccc caaattcact 120
 gtgattctcc aggaagttac cagggcctga gctaattgaca tggccaacag caagcctgca 180
 agatgaaagc agtttattaa tactcatacc attgaggatt ccaggaagga aagcagactc 240
 accagctgga ggtgggtggt ccagaacaac aggggaatgg caggaaacaa aagggaacaa 300
 ctcgag 306

<210> 1943
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 1943
 gaattcggcc ttcattggcct aacttcctct ttggatctca atagtcattgt cttccttttc 60
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 atggctgata ttttaacagaa agtgatcaag agctatctcc cactgctagt gagaaaaacta 180
 ataactaaaa gaatgggtga ctgatgagca ggtgactgac aggatcaaca aagtaacaga 240
 aagtaaaacc taacacagga agaattctag gatttgtgta ggtaggccaa aaggtaaagg 300
 ccaggcagtt attatagtc aagatgcca gagtgtagtc agatgcagtc agaaaaacaa 360
 actcagggtg acaaggggca ctcgag 386

<210> 1944
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 1944
 gaattcggcc ttcattggcct acagtcttcg ttctcttcgt ttttcagttt tgaagtttc 60
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 catacagtc attaatagtc ccattaaagg cattcttcac ctcttttgca gtgtttttta 180
 atctctagca tttctttttg gttcttctct aggatttcca tctctttgct tacattacc 240
 actattgttg catgctgtct actttatcca tttagcgcct taacgtgtta atcatagtgt 300
 ttttaaatc cctgtctgtg tgttacatct ctgccatgct tggttctgat gctcacccca 360
 atctcgag 368

<210> 1945
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 1945
 gaattcggcc ttcattggcct agtggtagaa ctttaagatt tgaagcttta acgagagtca 60
 gctagtgtgc agtgattaga gacttgtaag ttaattgata tacacacttt tgtctatatt 120
 tattaagtct ctcaggggaa ttgtagatta tttcagagt cagttttagg tcgtggatca 180
 gattttaagtt ggaagtaaat aatgggtatt actagaattt tttgttttg tttgttttg 240
 agaaggagtc tttctctgac acccaagctc gag 273

<210> 1946
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 1946
 gaattcggcg ccgcgtcgac ctcagcgaat ctactgggaa aacaagatag ttcggataga 60
 gaaggacaca gcagaggaaa ttaacaacat gaagaccaag ttttaagaaa caattgagaa 120
 gtgtgataat ctagagcaca aactaaatga tctcctaaaa gaaaagcagt ctgtggaaaag 180
 aaagtgcact cagctaaaca caaaagtggc caaactcacc aacgagctca aagaggagca 240
 ggaaatgaac aagtgtttgc gagccaacca agtcctcctg cagaacaagc taaaagagga 300
 ggagaggggtg ctgaaggaga cctgtgacca aaaagatctg cagatcaccg agatccagga 360
 gcattctcgag 370

<210> 1947
 <211> 822
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (155)

<220>
 <221> unsure

<222> (231)

<220>

<221> unsure

<222> (270)

<400> 1947

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gaattcgcgg cgcgctcgac gggcaatgtc ctgcgtgtgc tgggccagcg tacgattcag 60
ctggtccaca tggctccaca ggcctctctt gggcctcagt ggctcagtg gcaagctgtc 120
caggcccgcg gccagcaggc ccagcctcct gcacncaccc tccacttggt ccaccccgcg 180
gtcaaagtgt cccactgtgt gctgaagttt ctgggctgtg tcctggcagc ngctcaccac 240
actggccacc ttggccacac cagccttgat ttgctccagc tccccacgca ggttcaggac 300
ctgcctgttg ccagcctgaa gcctggagcc ttggctgtgt acctgctcct ggatggcctg 360
gacttcggct tccacettgc gttcccgctc atccagggac gtgttgagc ccaagaaggc 420
atcagagtag tggctgacag agtcactgag gcctgtgagc gacttgctca ctgagttcag 480
attgaccttg agcagagtga tctgccttg aagtgaagct cccgtccctt ttgccagctg 540
tccctggacc tcggccacag tgccattgag ctgctggagc agtgctgcgt ggctggccac 600
ctggcgtagg agggcctcgc tccggctctg ccaggccttc acctctgcca cgaggctgtc 660
caggatggct gaggtggtgc tcggggtgca cgaagtctcc agtgagacca accgttgctc 720
tagcacagcc agctctgtct gtacaagggg ccgagctgac ctgcccggag aggcgctgtc 780
atggcttagc tccccagcca atgtgtctag gcgtccctcg ag 822

```

<210> 1948

<211> 774

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (263)

<400> 1948

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gaattcgcgg cgcgctcgac aggagtttga aaaacaagat gaattaaagc gatctgccat 60
gagagcagta gcagcactgc taaccattcc agaagcagag aagagtcac tgatgagtga 120
attccagtca cagatcagtt ctaaccctga gctggcggct atctttgaaa gtatccagaa 180
agattcatca tctactaact tggaaatcaat ggacactagt tagatgtttg ttcaccatgg 240
ggaccattac atatgacct acnatgcact gaattgacag gttaatcata agacatggaa 300
agagaagtgt ctaaaagctt caaaatgttc cactttttt tccctcatgg agactgtttg 360
tttggcttcc ttcattgtgt gttttttagt catttatttc agaaatgtgt atttccataa 420
tccagagggt gtaaaaccac tagtgtttta gtggttacag caacatttga aatggaaact 480
aaaagttagg attttatgga gtatggagat aggggtccagt atctatttac cctgtaattg 540
ttaggattaa aatgttaaaa ttttgtgacc atgaatttct tctttttata aattttctca 600
tttaaaaatc aaaaatcttg caaaacaaaa accatgttcc tttttcttgt ataacttttt 660
gttttcagca acataaattg atttttagct ggcagacaag aatatccata taagatttgt 720
taaccatttc agagagtttg gcaattttta aaagataata aggtatcact cgag 774

```

<210> 1949

<211> 404

<212> DNA

<213> Homo sapiens

<400> 1949

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gaattcgcgg cgcgctcgac caggaaacaa tggagaaact gacttggtgt gcatctgaaa 60
ggcgcagtag tcaggagggt gagtctgaag aagagaattc tcaggaggag aactctgagc 120
cagaagaaga ggaggaagaa gaagcagaag gaatggaaag cctgcagaaa gaggatgaaa 180
tgacggatga agcagttgga gactctgtgt agaagcctcc tacrtttgtt tcacctgaga 240
ctgctccaga agtgagagacc agcagaactc caccaggaga gagcatcaaa gctgctggaa 300
aaggccggaa caatcatcga gctcgcaaca agcggggaag tcgggctcgg gccagcaagg 360
acacctccaa gctgctgttg ctgtatgatg aggacattct cgag 404

```

<210> 1950
 <211> 630
 <212> DNA
 <213> Homo sapiens

<400> 1950
 gaattcgcg cgcgctcgac tgagtatat ccaggtacaa cctccttagg catgtctgtt 60
 ttttaacctaa gcaacgccat tatgggcagt gggatttttg gactcgcctt tgccctggca 120
 aacactggaa tcctactttt tctggtactt ttgacttcag tgacattgct gtctatatat 180
 tcaataaacc tcctattgat ctgttcaaaa gaaacaggct gcatgggtga tgaaaagctg 240
 ggggaacaag tctttggcac cacagggaag ttcgtaatct ttggagccac ctctctacag 300
 aacactggag caatgctgag ctacctcttc atcgtaaaaa atgaactacc ctctgccata 360
 aagtttctaa tgggaaagga agagacattt ccagcctggg acgtggatgg ccgcgttctg 420
 gtggtgatag ttaccttttg cataattctc cctctgtgtc tcttgaagaa cttagggtat 480
 cttggctata ctagtggatt ttccttgagc tgtatggttt ttttcctaatt tgtggttatt 540
 tacaagaaat ttcaaattec ctgcattgtt ccagagctaa attcaacaat aagtgtctaat 600
 tcaacaaatg ctgacacgtg tacgctcgag 630

<210> 1951
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 1951
 gaattcgcg cgcgctcgac caaaaactga tagtatgcca gcaatgcagt tagcttctaa 60
 agatcgagtt agtgaagat cttcagctgg ggcacataaa acagattgcc tcaaactagc 120
 agaagccgga gaaactggaa gaatcatttt gccaaatgtg aattcagaca gtgttcacac 180
 aaaaactctgaa aaaaactttt aggcgtgtct acagggcagt gttccagtt cagtcattgtc 240
 tgctgtaaat acgatgtgta ataccaaaac ggatgtaatc acatctgctg ccgatactac 300
 cagtggtttcc agctgggggt gttcagaagt aatttcctct ttatcaaata ccattttggc 360
 ctctacatca tcagaatgtg tatcttcaaa aagtgtcagt cagccagtgg ctcaaaaaaca 420
 agaatgcaag gtcagcacca cagcaccaga gctcgag 457

<210> 1952
 <211> 742
 <212> DNA
 <213> Homo sapiens

<400> 1952
 gaattcgcg cgcgctcgac tgggtggatga aatgacatag gcttactagt cgctgaataa 60
 tatccaattg ctctcttaaa tcgaataact ttgtcatctg ttctagactg tgaatgctgg 120
 aaaacatctt tagctatggc atccaagtca gaggtgtcct gaatgttgcg tacatagtca 180
 gcaacggctt tgatcactac gtcgcaaggt ggcaagacca gctgggtggc ccggaccttt 240
 agtgaggcta gtggatgttc tggaccaagt aaactccaat gaaaggaagc cagatcttca 300
 tcaggcagaa tgtgatttcc taagagagca gcaaaaatag gaaaacgatt tggattcagg 360
 tccagttgct tggcaacttc atgcatcaga tattggcttg tggtagactg tttcccgctc 420
 cggctcagtt ttagggcatg ggcactgaaa tagtagggga tgttgccagc tgcataatca 480
 gagtcatacg caaccaagcc atggaaacca ttctctctgc agaaaccaa cacttctctga 540
 tggtgatcct caatgctctg tgcaaccttg acgtggaagc ggatgagcgc caggcggatg 600
 cagtgggcca tgcagacggg cggcaggaac cagacctttg gcggcggggt gcccttgctc 660
 tggacatggc tgacgattgc tgtgcccgtt ggcgctcgct gccctgcgcg ttgacctact 720
 cgtgcagcgg gcccttctcg ag 742

<210> 1953
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1953
 gaattcgcg cgcgctcgac gtggctggtg ggaatgttgg tttcttggaa gaacgtgctc 60

agcgcgggtct cgaactgccca gtgggcccgc tgcagcagct gcttcgcctg gtcggccgcg 120
 cagcccgccg ccagcacgaa ctggttgatc atgacctggg gccgcagctc gtccatgttc 180
 accgacatgg cgcggcgccg cgcggggccc ggcgacctcg ag 222

<210> 1954

<211> 527

<212> DNA

<213> Homo sapiens

<400> 1954

gaattcgcgg ccgcgtcgac gtgggattac aagcgtgagc taccacaccc ggccaattta 60
 tatttttagt agagatgggg tttggccatg ttgaccaggc tggctctgac ctcaggcaat 120
 ctgcccgccct cagcctccca aagtgtctggg attacaggcc tgagtcactg cgcgcagcct 180
 gagatgtttt ttagatacac aaagtagaga tgttcagtga atactttgat gtgggtctac 240
 agtcagagaa gagttgctgg ctgaagatgt aaatttgta gcatgttgat aggatttatt 300
 ttttattctt tttcttaaga gatggggctc cactctgtca ctgaggctgg agtgcaagtgg 360
 cacaatcata gctcagtgcg gcttccaact cctagagtca agtgatcctc ctgcctaagc 420
 ttccagagtc gctggaatta caggcacgcc accatgcctg gctaattttt aaattttttg 480
 tagagggaaa agagggaaaa gaacaggccc taggactgag gctcgag 527

<210> 1955

<211> 530

<212> DNA

<213> Homo sapiens

<400> 1955

gaattcgcgg ccgcgtcgac aaggcgaaga atggcaaagg ctccgcagtc tcctggcccc 60
 gctcctcttc cggcctcaag cggccgccc ctagccgga accctgaaca acgtagtctg 120
 cgaccttggt cggcgtctga ggcgccagcg gggacgtggc acggggccgc ccgccctggt 180
 tcgggacgtg gcgggggaat tttacaagtt cggactggaa ggtgagtcctc aggacagagc 240
 tgggcagycg tcggggggc cctaccagag cctcccgaa ccctgacggc gccccctccc 300
 gacaaggcat cgcgcggct ctgctcggct cgcgcttggg ctgcctggag gctcaagtgc 360
 caccgcacac ggagaccttc atccgcgctg tgggctcggg gtttgtgtcc acgctgttga 420
 ccatggcgat gcccactggt ctgcgccacc ttgtgcctgg gccctggggc cgcctctgcc 480
 gagactggga ccagatgttt gcatttgctc agaggcacgt gggctctgag 530

<210> 1956

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1956

gaattcgcgg ccgcgtcgac caaatcaaag aagcatcgtg tcagaaacag gagaaaattg 60
 aagtcattgtc tttgggtcga tgtcaagata acacaactac aactactaag tctgaagatg 120
 ggcattatgc aagaacagat tatgcagaga atgctaaca attagaagaa agtgccagag 180
 aacaccacat acctgttccg gaacattaca atggcttctg catgcatggg aagtgtgagc 240
 attctatcaa tatgcaggag ccattcttga ggtgtgatgc tggttatact ggacaacact 300
 gtgaaaaaaa ggactacagt gttctatacg ttgttcccgg tcctgtacga tttcagtatg 360
 tcttaatcgc agctgtgatt ggaacaattc agattgctgt catctgtgtg gtggctcctc 420
 gcatcacaag gaaatgcccc agaagcaaca gaattcacag acagaagcaa aatacagggc 480
 actacagttc agacaataca acaggggct cctcagag 518

<210> 1957

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1957

gaattcggcc aaagaggcct agggagctga atgaatgaat tagatttggg gttttttggt 60
 gtttttgttt tgttttttga gatggagttt tgctcttgtt gcccaggatg gattgcagtg 120

gcgcgatctc agctcactgc aagctctgcc tcccagggtc acgccattct cctgccccag 180
cacctcgag 189

<210> 1958
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1958
gcctaaaccg tcgattgaat tctagacctg cctcgaggag cctctgagca ttttcctttc 60
cctcactgct ttagaaacct ctattcagat ttttcattat aatgattctt ttgcttttaa 120
cccaactcct cgag 134

<210> 1959
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1959
gaattcggcc aaagaggcct ctttggccga attcggccaa agaggcctag tgaagtggac 60
caaaaggtcta gaattcaatc gacggtttag gccaaaccgt cgattgaatt ctgacctgc 120
ctcgag 126

<210> 1960
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1960
gaattcggcc aaagaggcct agaccatata aaaattagaa agaaaaaagg agacactata 60
actgatccca cagaaataca aacttattag aactatttat gaacttaaac attttctcca 120
agtttctccc tata 134

<210> 1961
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1961
gaattcggcc aaagaggcct agtcttgatc cccacacatc tttccagcct cccctccac 60
tccactccct gctccctcct ccacctcccc atctcttgt ctccctccc ctctgaatcc 120
agcccagcgg ggcttctcct gcctccatca catcacagaa gtacctctg cttctgggtt 180
taattagagc cttccccgat tacattttcc tctgaatttt ttcctatcta catttgatct 240
gtcatgttta aaccccctac ttctaaggga acttctctaa tctcttatcc tcaccccaa 300
atactcgag 309

<210> 1962
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1962
gaattcggcc aaagaggcct agcatgaggg tctgtttaga gagcctcagt attaggaatc 60
agaggtggca gaggtagcct ttttaattgg ctgttataag catacaagat aatggtaagt 120
tttaagataa gtcttaaacc tgagctcaaa agttagagaa cagaaatagg agaacaagaa 180
aaataaagt ggcctttcag tttaaccttt taacagtagc agtgtttgtc agttttcttt 240
tggaagtgtg tatctacctg cagtgttg taagaaaaat aacctgggag acagagttag 300
aatccgtctc caaaaaaaaa gaaaaaaaga aagaaaaaga accattctta cccctctcga 360
g 361

<210> 1963

<211> 442

<212> DNA

<213> Homo sapiens

<400> 1963

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gaattcggcc aaagagccta gtggagcttt tggagttttt catagttagc attcagcttc 60
ttggatgtgt agatttatat cttttaccag atttggaaag gtttggccat tatttcttca 120
aatagtcttt ctgccccttt ctctccttct ggaactccca taatgtgtat gttggctcgg 180
ttgatgccac agtttcctta gtctctgttc actttttcat cctttttctt tctgttcttc 240
acacttgata atttcatttg tcttatcttc aagtctcactg gttttttttc ctctgcctgt 300
tcagatctgc tgttgaagcc ctctagttaa attttaactt cagctattgt acttttcagt 360
gctagaattt ctatttggtt ctattttcga tctctttcat gatatttttt ctttgtaaag 420
tcacatctct cctggctctg ag 442
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<210> 1964

<211> 122

<212> DNA

<213> Homo sapiens

<400> 1964

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gaattcggcc aaagaggcct agtctatgct tgaaattttc catgataaca agtttttttg 60
gatttttttt gttttttaat tacaaaacaa cctgttcacc ctatgtttct tcaacactcg 120
ag 122
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<210> 1965

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1965

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gaattcggca aagaggctac cgggacgcgg tgaggcggaa gctgtgtatg gcgggaggct 60
gtggcggtcc ctgggtgggg aagctgttgc tgttgctaga cgacgggaac tagctctcgt 120
cacttctcta gcccgccgtc tgcccactcc tctagccgga acctgggggc ccggagccgg 180
ggtaggcaca gagttgtcct cggaggtcca ggacagcggc cagccggcgg gcgggagtca 240
gggccacgcc acctgcaggg aagaacccga gtcgaagcgg gaagatggct gcagacaagc 300
ctgcagatca gggagcagga aacactcgag 330
```

<210> 1966

<211> 122

<212> DNA

<213> Homo sapiens

<400> 1966

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gaattcgcgg ccgcgtcgac agaatgcttc tttctgacac actggtgttg ttaaattgct 60
atcagatcct tcttttaaga tatttggcca tcaaaattca ctatgaatcc ccacagctcg 120
ag 122
```

<210> 1967

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1967

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gaattcgcgg ccgcgtcgac ctctgttatt tggttggtgc tatacttgta ccgtaaaca 60
gttttaaac ggtgatgata ttaacaaaga aaatcccggg cattctcgag 110
```

<210> 1968

<211> 259

<212> DNA

<213> Homo sapiens

<400> 1968

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gaattcgcgg cgcgctcgac caaaataagc catgctgctt tgcacacaca ctagccttct 60
tttgtacttt tcttctggat gggcttgcc aaaacaggct caggccaaag acctcccaag 120
ctgtatgtac ttccagtatc ctgaaacagt gtttggtgac ataatgccaa gggtaaacia 180
gcctgattta ggcactgctt tatccagggg cttcacccat gaaattaata aaacttatct 240
gagtcacttg aaactcgag 259
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<210> 1969

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1969

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gaattcgcgg cgcgctcgac gtgactctac tagaagagga ctcttagaag gtttcctccg 60
gactttactc catgtaccct ttccctttgc tgattttgct ttgtatcctt tccactgcaa 120
tacatttttag ccatgagttc aatgaacata tgcagagtcc tggagatcat ctctcgttag 180
ccaccaaacc tggaggtggt cctgcggatc ctctcgag 218
```

<210> 1970

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1970

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gaattcgcgg cgcgctcgac aatcaaggca attaggatat tcattctcaa cgtttatcat 60
ttctttgtgt tgggaacatt ccaaattctc tagctatttt gaaatataca ataaattatc 120
attaactatc atcacctat gctgctatta aacactagaa cttattttatt ctctctgact 180
gtattttgt acctattatc caccctctct tcattccccac cccctactca actcgag 237
```

<210> 1971

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1971

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gaattcgcgg cgcgctcgac ggggagttgt ataggaactt acctagataa atttgtttat 60
tcctgtgtcc agaaaccaac ctttgatcat tcacacacag gactgtgtc tacttgggat 120
gttgacaatg tttattgccc acaaattgtg tttgctccaa gcctttgtca ttaaatttgt 180
gctaaataaa tgtgagggcc accagcttaa ggggactgct aactctcttc ggcccctagt 240
gctggcagtc ccctggccgc tcgag 265
```

<210> 1972

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1972

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gaattcgcgg cgcgctcgac atgggctaca acagtgcag tcccatgggt tccatgacct 60
ctttcatcag tgccttcag agtacagact ggcctgtgaa tggggagctt tcccatgact 120
gtgacggacc cataactgac ttgaattctg atcagtacca gtacatgaat ggtaaaaaa 180
aacattctgt tcgaagattg gaccagaat actggaagac tatactgagt tgtatatatg 240
tttttatagt atttgattt acatctttca ttatggttat agtccatgag cgagtgcctg 300
acatgcagac caatccacca ctcgag 326
```

<210> 1973

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1973

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gaattcgcgg ccgcgctcgac cctgaaatga gattatcttt cattgtgttt tcttctcaag 60
caactattat ttgcctctg tctccagtta atggcaaaat cagtaaaggc ttggaggatt 120
taaaacgtgt tagtccagta ggagagacat atatccatga aggactaaag ctacgcaatg 180
aactcgag                                     188

```

<210> 1974

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1974

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gaattcgcgg ccgcgctcgac agtatcttta ggtcagcttc ttaatgtttc agggtttttt 60
gtttcttttt cttttttttt tttttaactt aacaaaatca aatgctttca aacaggggccc 120
gactcttaat tgtaatggag atgatggaag ggggagagct atttcacaga atcagccagc 180
accggcacaa ctcgag                                     196

```

<210> 1975

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1975

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gaattcgcgg ccgcgctcgac cattcctcat ctacactctg aagctctgaa gtctttgacc 60
atgcaagttt taaatagcat ggcagcattt attgcccctc catcaatctt gcaaagaatc 120
ttacaggatc cagtttatgg aaaaggaaaa cttggagaaa tccagggact tatcttgga 180
atgttagata cctttaacta tgaacaaacc ctgctggaag caacaaccag ccttctaaac 240
caagaactcg ag                                     252

```

<210> 1976

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1976

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gaattcgcgg ccgcgctcgac ggtttgacct gagctccctt cctcacacct tgtatgcatg 60
ttctgtctct gggctctctg ctgttgtgtt ccgctgtcgt tttgcttget gactccacag 120
agagtttctg tcctggtgtc cacaagagt gcacgtcaag gtcaggagct cgag 174

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<210> 1977

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1977

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gaattcgcgg ccgcgctcgac atgctgttga gtgttattca tgagaatgca gggcactttc 60
tccttctcct tggagcagta ggaggcaaag tccttggaga tgatgtctgc atactggagg 120
agcacattac tgatggtctt ggcaaagcgc ctcattgtagt gcccacgat ctgagggtcg 180
ggacactcga g                                     191

```

<210> 1978

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1978

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gaattcgcgg ccgcgctcgac gttgcaaaga aaagatctga gatttgcctt aaaacttcca 60
gtgaggatac acattacaag gttagccatt tcattttaat aactcttttt aaaaaattat 120
cttttccttg attaaaatct ccttttccaa aatgcctagg cctcttaaaa caagtcttta 180
tcattctgata ctcgag                                     196

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<210> 1979
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 1979
 gaattcgcgg ccgcgtcgac ttcttttttc catttttttc caatttgag tcactgaaaa 60
 ctaagctgtg ctttcataaa gccctgcaaa ctgaatctag acaacttcag aagaaaaata 120
 acagcaacct atttacatac ataagccact ttcataacct cctaccgatg tatggacttc 180
 agagtaatgt ggcttatagc aattttccag gattgttctt ttgtttgttg ttgttctccc 240
 ttctctcccc tattttgtct ttatgggaca tgacacttca caaccttcta aaaatgagtt 300
 ttcttaataa ctcaggacct actcgtctag aaataaacct cgag 344

<210> 1980
 <211> 616
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (32)

<220>
 <221> unsure
 <222> (46)

<400> 1980
 gaattcgcgg ccgcgtcgac actgtttgaa gnatttaaca gtaagntaca gaagaagtac 60
 ctctcgagctg agacctcgag gtgtataaat atctaaaata catattgaat aggcctgac 120
 atctgaatct ccttcagacc caggaaggat ggctatgact tggattgtct tctctctttg 180
 gcccttgact gtgttcattg ggcataatag tgggcacagt ttgttttctt gtgaacctat 240
 taccttgagg atgtgccaag atttgcctta taatactacc ttcatgccta atcttctgaa 300
 tcattatgac caacagacag cagctttggc aatggagcca ttccacccta tggatgaatct 360
 ggattgttct cgggatttcc ggccttttct ttgtgcactc tacgtccta tttgtatgga 420
 atatggacgt gtcacacttc cctgtcgtag gctgtgtcag cgggcttaca gtgagtgttc 480
 gaagctcatg gagatgtttg gtgttccttg gcctgaagat atggaatgca gtaggttccc 540
 agattgtgat gagccatatt ctcgacttgt ggatctgaat ttagctggag aaccaactga 600
 aggagcctat ctcgag 616

<210> 1981
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 1981
 gaattcgcgg ccgcgtcgac aaagaattca aatatgcacc tggctccctt cactattttg 60
 ccctatcctt tgtgtcatt ctactgaaa tctgtctgt cagctcagga atgggattcc 120
 cccaggaagg aaagcacttt tctgttcttg gaagcccaga ctgttcaatt tggggcaggg 180
 acgaacatgt gcctcgtgaa ttgtcttgaa aacagtcacc atcttctacc cctctctgag 240

<210> 1982
 <211> 130
 <212> DNA
 <213> Homo sapiens

<400> 1982
 gaattcgcgg ccgcgtcgac gttacaaaat gaagactgga atatgttttc ctttttcttt 60
 tcttttcttg ttttttttga gatggagttt tgctctgtca cctaggttgg catggcggcg 120
 tgatctcgag 130

<210> 1983
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 1983
 gaattcgcgg ccgcgtcgac agaaaacact ccataattgc tttccttgat tttgctgagg 60
 atttggtagt attttagtaa gcaaactgtt ttttggtttt tccttaatgt ttttaatttt 120
 ttttcctctt gcaacaactc tcgag 145

<210> 1984
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 1984
 gataattttt ggctctttt tccccctcag agaaaatata aatctttcaa aatatattta 60
 acttttctct atttctttcc ctatttaact tttctctatt tctaataatca ccactccaat 120
 gaaatgtttt attatctttc atttaagatc tctcattctg attgatcttt cacctgcctt 180
 tggcctttca atacgaccca ccactcga g 211

<210> 1985
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 1985
 gaattcgcgg ccgcgtcgac tgagccttag catgggaata acaatgatgt gtatggcacc 60
 taatacttat ggaagtaacc ctatttcgtt gtatatcggg tacacaattt gggggtcagt 120
 aatgtttatt atttcaggat ccttgtcaat tgcagcagga attagaacta caaaaggcct 180
 ggtccgaggt agtctaggaa tgaatatcac cagactcgag 220

<210> 1986
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1986
 gaattcgcgg ccgcgtcgac ctcacacag caatagtgtt ctaataagtg ggaaacaatc 60
 taattgttca gcattagagg agagtgaagt agttcagatt cattcatata attcagttgg 120
 tcatttatta ggggtattgt ttttaacaat tcaagaaaac atgtataata acagaagctg 180
 gtttggtttt ttaatacgaa cactcgag 208

<210> 1987
 <211> 199
 <212> DNA
 <213> Homo sapiens

<400> 1987
 gaattcgcgg ccgcgtcgac tgagagtgat gatttcttta aaaaaaatca gtttttttct 60
 ctcaaaataat gttctttatt tcacgaaatc atcaatctta agcatgagca gggataaaca 120
 actcctagaa ggaactcaat tcattcttcc tggattttct ctgttggttaa atcacaaaaa 180
 tgatagtccc cctctcgag 199

<210> 1988
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 1988

```

gaattcgcg cgcgctcgac ggaagtacat tccagtcctt aattcctcca gtgtggttga 60
tagctctgtc agaataactg cagtctaatt tttcccttca tttttaagt gatttttttc 120
tactaaatga tttcttttat ctattttctt tttcttgagc ctgatttatt ccctagtgtg 180
ggcctttatg taacttttagc tccagcaciaa ctcgag 216

```

```

<210> 1989
<211> 250
<212> DNA
<213> Homo sapiens

```

```

<400> 1989
gaattcgcg cgcgctcgac actccatggt tgcagctaaa cttctgactc acatgatggc 60
agccagctta ggtacacaga ttctgtttct ggcgtctgca tacgcaagtc cccaactcgc 120
tgaggagagc tgttcagcta tggctgctgt cacacattac ctgtatcttt gccagtttag 180
ctggatgctc attcagtctg tgaattttctg gtacgtgctg gtgatgaatg atgagcacac 240
aaatctcgag 250

```

```

<210> 1990
<211> 265
<212> DNA
<213> Homo sapiens

```

```

<400> 1990
gaattcgcg cgcgctcgac aaatatttca taattaatgt agaatgttcc taaaatgtaa 60
tactaaattt atgaacaatc tatgtttatt tcttttgaaa agaaattggt tgaatcacat 120
tgctgcttta tgttaccttt ttcatacttt tagctacttc atgtacacga gatcttcctt 180
gattgtcact acaattggga attggtaatc tgggtgcatt cgtaaactct tttctccta 240
agatttggtt cccttgaatc tcgag 265

```

```

<210> 1991
<211> 162
<212> DNA
<213> Homo sapiens

```

```

<400> 1991
gaattcgcg cgcgctcgac agttaattaa catacccatc accttacgta cttacctatg 60
atgagaacat ttaaaatcta ccctgttagc agttttcaag tgtactatgc attattgtta 120
attatactca caatgctgta caatagaact ccagaactcg ag 162

```

```

<210> 1992
<211> 171
<212> DNA
<213> Homo sapiens

```

```

<400> 1992
gggtgttctc tgtggcctca cccaggtctt gtgtattatt tggtaattaa tttatggatc 60
ttaaaaactg cagtattccc ccatcttggt atgagagtgt ggggctggca ggggttggtt 120
ggagggagga gagaagacag aggagcactt aagggtgcaa gcaggctcga g 171

```

```

<210> 1993
<211> 245
<212> DNA
<213> Homo sapiens

```

```

<400> 1993
gaattcgcg cgcgctcgac tgagctcttt cctgcctctg agccttgcca cacactgttc 60
cctctgcctg gaataacctc tccccctagc tttctcggtt gttccttctt gtctcagctc 120
aatgtctct tgtagagatg gctccctga tcatgtcccc taacatagca cccccctca 180
ccctatcata caactcatgt tgtttggttc cattttgggt ttgtctttat agcactaaac 240
tcgag 245

```


<210> 1994

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1994

```

gaattcgcgg ccgcgctcgac aataaaagaa agcctataag aatacctata agggtaggca 60
catcaccact gagagaaaaa aaaaaatcaa gggagtttat gttaaagtga gccctattta 120
agagatagca gaagaattaa gattgagact taaaaacaaa ataattgtta tgaaaatccc 180
tttctcgcgag                                     190

```

<210> 1995

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1995

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gaattcgcgg ccgcgctcgac gaaatatact ctaatacggg aaatcttaga tattattatc 60
ttccatctat tatttacaat ttttacaatt taccatctct ctcatatcat gagattctaa 120
gttttagacc atgttaatgt ttcttttttg ctggttcgtg ttttcaagat ttggcaaacc 180
aaatctcgag                                     190

```

<210> 1996

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1996

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gaattcgcgg ccgcgctcgac ctgcctcgta aaagtgtttt catctccatt agtttgtaac 60
tttctgtaa taacttgact ttgggatggg ccatttcag gtgctgttc accagttact 120
cgag                                     124

```

<210> 1997

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1997

```

gaattcgcgg ccgcgctcgac gagatcctgg attgagaatc tgtgttttag attctttatt 60
ttagtgtatt tttctctaaa gcatttttta gttttatttt ctcttataaa cttattttta 120
ttttttcttg aagctctgta ttttcttcct catgaagatt tttgctgcat tactcgag 178

```

<210> 1998

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1998

```

gaattcgcgg ccgcgctcgac ctgtgcttac ctttggtatg ggctcattat atatgtttgt 60
tcagaccatc ctttctacc aaatgcagcc caaaatccat ggcaaacaag tcttctggat 120
cagactgttg ttggttatct ggtgtggagt aagtgcactt agcatgctga cttgctcatc 180
agttttgcac agtggcaatt ttgggactga tttagaacag aaactccatt ggaacccggg 240
actcgag                                     247

```

<210> 1999

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1999

gaattcgcg cgcgctcgac attgaattta gacctgcctc gagaacacac acaggcccca 60
caccctcctt cctggctcca ctcaccaag atattgcaac ctctcaata caccctgatg 120
actatctcag cctccacatc cttgcattgc tatttatgct gcctgggtgca cctcatgctg 180
cctcacccca tcattctgct catttctact cttactccag atctcgag 228

<210> 2000

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2000

gaattcgcg cgcgctcgac ggggtgggca ataggtcagt gaattccagg tagtaggcca 60
catccataat tgcggcatgc tccttagtaa gcagagtggg aaatgggtac aaatagaaca 120
cagaacagaa agaatcctaa ccaagagggt gaaggaaata agccaactaa taataatggt 180
tctttcttgg tattgggggt tattattaat attatgcttc tttgtaatat tcagtattgt 240
caagacagtc tcaagaactg aaggaaattc agatgaaata caactcgag 289

<210> 2001

<211> 191

<212> DNA

<213> Homo sapiens

<400> 2001

gaattcgcg cgcgctcgac tagacctgcc tctaaattgt ccaccatcaa cgaacccct 60
ccaaggtttg ctggaaacac tgtagcctg taagtagcag atactccctc ctctgtttgg 120
tccagtaacc tgtaatgtca ctattctttt tacttcttgt tgcgctccc ctctcacc 180
aagctctcga g 191

<210> 2002

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2002

gaattcgcg cgcgctcgac gaaagaaagt tctaattgtca ttttcaagat cttcaggaaa 60
acgaactaat ttttagttcaa ttgctgtggt ggtgttacat ttgtactctg ccagtttctt 120
ctccactgcc ctcgag 136

<210> 2003

<211> 179

<212> DNA

<213> Homo sapiens

<400> 2003

gaattcgcg cgcgctcgac atgagatttg aggtcaagga aatattttta ttatttttta 60
cgatgagaga aattgtagta cacatgtata tttatgggaa tgactcagta gaaagaccaa 120
aaatttcata tgtgagagaa ggaccaattg atgaagcgat gttcttgcgt gtgctcgag 179

<210> 2004

<211> 188

<212> DNA

<213> Homo sapiens

<400> 2004

gaattcgcg cgcgctcgac ctagaagcaa gctgagtttc tatttcacac atacagtatt 60
ctgctgcttc ataatatatg cacatatatc ttcatatctt ttgccaaac ctttatttct 120
tcagtcaact attatctaata gactttgaac accaacgtag tgaaatgatt ttaaaggga 180
ctctcgag 188

<210> 2005

<211> 224

<212> DNA

<213> Homo sapiens

<400> 2005

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gaattcgcgg ccgcgtcgac cacactcaca ccagaacat gtttctatta tctggactat 60
tcaggaactt agtgggaattg agtgcctcga ctatgcacac ttggaatggc cctgttcgag 120
acagggcagg gttgaagaag ggtttggccc gtgcagtggt gtgcccacct tcagggcaag 180
cagctgactc cttcctttcc cccaggcatg ggagctccct cgag 224
```

<210> 2006

<211> 199

<212> DNA

<213> Homo sapiens

<400> 2006

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gaattcgcgg ccgcgtcgac gtcacctttc tgaaatggga aaaattttac ataacgtatc 60
atccccagta gggtttgagg tgggtgccctc aaatacactg ttatttttgt tgtgttttg 120
ttttgttttg agacggagtc tcgctctgtc acccaggctg gaatgcagcg gcatgatctc 180
ggctcaatgc aacctcgag 199
```

<210> 2007

<211> 335

<212> DNA

<213> Homo sapiens

<400> 2007

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gaattcgcgg ccgcgtcgac cctaaaaact tagtagccgt tttttttttt aaatacacac 60
atagtgaata atatttttat ttaaaaatta aaatgtttta ttttaagcaa ccaaaatttc 120
tagtatatac actgcacaac ctcccaaatt tggatgtggc cactgtcatt tctgtttcca 180
cactgatttt tgcacagtac ttactttttt tcacagcaac cactaacagc caagcttctc 240
aaagatgtgg tggcattgaa aggaatgtag taaaacgacg taatgttcaa acggaactac 300
ctggacattt ttctccaaac ttagaaaacc tcgag 335
```

<210> 2008

<211> 201

<212> DNA

<213> Homo sapiens

<400> 2008

```
gaattcgcgg ccgcgtcgac ggcagtgaca agtgattgct aaagatacca tagtcttaaa 60
gttaagtcag taaacacaag atagtaatcc cagataaact ggaagctgta gagttaatac 120
tcctttactg gtacagagca gtgtgtgtaa attgtagaaa atttagaaat acataaaaag 180
atgaaaactc tactactcga g 201
```

<210> 2009

<211> 391

<212> DNA

<213> Homo sapiens

<400> 2009

```
tgttttagatg tgtatgaaat acctgtatac gttagtgaat gctgtttact gtaacgggga 60
aaaccagatt ctttgcattt gggccctcta ctgattgtta aaggagttcc tgtcacctgc 120
tccccccacc cccgcattcg tctgtccact tggctaactt ttaatatgtg tattttttaca 180
ttatgtatat tcttaactgg actgtctcgt ttagactgta tacatcatat ctgacattat 240
tgtaactacc gtgtgatcag taagattcct gtaagaaata ctgcttttta agaaaaaaaa 300
taacatgctg aggggtgacc tatatcccat gtgagtggtc actttattta taggatcttt 360
aaaacatttt taatgaacta agtcactcga g 391
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<210> 2010

<211> 207
 <212> DNA
 <213> Homo sapiens

<400> 2010
 gaattcgcgg ccgcgtcgac cttttatggc agtcatatga accattatct tagcatggta 60
 aacctgggtt ttgttcatat tttctccaga cagaaatgca aagatcaaac tgtgcaaata 120
 ttaaaaaaat gcacatgctg ttttattcaa atgcctcttt tgtacatgtt catgttttagt 180
 gttttctcag aatcagcacc cctcgag 207

<210> 2011
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 2011
 ggaatcatct tggggettatt tcttgctagt tgttccatat ttctagattt catcttgaat 60
 tttgaaaact gatttaagaa tatatttagt attattatta gtaagggaat acgcaatcca 120
 gtttcaattt tattcagaag taggtcacct aattctagaa aatgggtatt agtctagtgt 180
 cgcttctcga g 191

<210> 2012
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 2012
 gaattcgcgg ccgcgtcgac ccattgcccta tcagtgggaa taccctgatt tgctgagcat 60
 tttgccctct ctcttgggac ttctctcctt tccccgcaac aacattagct acctgggtgt 120
 ctccatgatc agcatgggac tcttttccat cgctccactc atttatggca gcatggagat 180
 gttccctgct gcacagcagc tcgag 205

<210> 2013
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 2013
 gaattcgcgg ccgcgtcgac ctaaaactata tgctaatttt aggtattttt ttatttaata 60
 agtggataga accaaaccag ataactgact ctcttgagaga agaagtaagt ggtctcttaa 120
 taagcactgc ttggtctcag aaccttagta ctcccccaag ccaactcgag 170

<210> 2014
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 2014
 gaattcgcgg ccgcgtcgac ctaaagggtct atcctcatat ccccaacccc tccacccac 60
 ctccatccag aggaaggaa caaaatttct gcaacaagat tctaagcctc tccagggtag 120
 gaaccagata ttatttttact gttttttgct tttcaaacac caactcaaac cagatattgt 180
 ttctctttta tgtctatcac agtggtttta gtgagtttct tatttggtga aggtgtattt 240
 tgtgccata acaagaattra ccgtgttaat tcttacaata caacctcga g 291

<210> 2015
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 2015

```

gaattcgcgg ccgcgtcgac ccaacccgac acatgctact gctgctgcta ctgctgccac 60
ccctgctctg tgggagagtg ggggctaagg aacagaagga ttacctgctg acaatgcaga 120
agtcctgtagc ggtgcaggag ggcctgtgtg tctctgtgct ttgctccttc tcctaccccc 180
aaaatggctg gactgcctcc gatccagttc atggctactg gttcaggggc aggggaccat 240
gtaagccgga acattccagt ggccacaaac aacaactcga g 281

```

<210> 2016

<211> 237

<212> DNA

<213> Homo sapiens

<400> 2016

```

gaattcgcgg ccgcgtcgac aatgctaata tgtagtttat ctgcttcaat tttgaagggt 60
aggatatata tagttatgtg tgtgtgtgtg tgtggggggg tagtggttgt gtgtgtgtgt 120
gtgtatatata atttatatat tactagtcca ttgctgtctac aacaaactac cactatgtca 180
gggcataaaa caaatttatt acactcctgt atgtcagagt atgatgcgga tctcgag 237

```

<210> 2017

<211> 273

<212> DNA

<213> Homo sapiens

<400> 2017

```

gaattcgcgg ccgcgtcgac caccactgca acatatagac ctgagtgcta ttgtattttg 60
gcttggtgtg tatgctcttc attgtgtaaa attgctgttc ttttgacaat ttaagtgtt 120
gtttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaattccaat gactgtgctg 180
tggttgagaga ctttattttac caagatgttt actcttcctt tcccttcca ttttgaggag 240
ctgtgtcact cctctctccc ccaagtgtc gag 273

```

<210> 2018

<211> 262

<212> DNA

<213> Homo sapiens

<400> 2018

```

gaattcgcgg ccgcgtcgac ctaaaaaactc attttactg ctattaattt gctactttgt 60
gtcctcaata agggattact aaatttaatt gattttgaac tcaactgatt tgaacttaat 120
gaaattgttt atttcagtaa cttcactttc ttttattttc ttcaccatta aacttggtga 180
tatgaatccc aaacatctcg ag 202

```

<210> 2019

<211> 278

<212> DNA

<213> Homo sapiens

<400> 2019

```

gaattcgcgg ccgcgtcgac tacacaacaa caacaacaac aacaacagaa acaaaaaacta 60
gcaacaaggc tgcaatatct acaattggga taatgagtc tctgccctgg cttctgtctc 120
agcctccctt cccatctcta accatctgtt tgtctctcta tcttctgtc tttttctcag 180
catataaaca aacatgcaca ctaacacca ggatggatat atctaagttt gctcatcaga 240
ccgaaagttt tccaatctgg catgtccag aactcgag 278

```

<210> 2020

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2020

```

gaattcgcgg ccgcgtcgac tgggttttga attatcatac agtaaaattg acttttggt 60
tggtgtagtt ctgtgaattt aagcttagac ttctgtgacc actagaacaa tcaagccgga 120

```

gaacagttct gtctttcccc aaaatttgct catgctgctc ctccctgctg caactccttg 180
gctcgag 187

<210> 2021

<211> 303

<212> DNA

<213> Homo sapiens

<400> 2021

gaattcgcgg ccgcgtcgac aggagctggt actaaagttc tgagggctgc agttaaaca 60
ttccaatttc tcccttcctt ccatctttct ttattgattg attctcaaga ttttgcacag 120
aaaactcttt gggggctaga acagcagtaa ttgcatcaca ctgttttcaa gacttcaagt 180
ttcaaaagca aatcattaaa aaaaatacag ttcttgattt gagttagata cagggacaaa 240
aaagtagcac atacttgaag gttacgtggt ctacaaatgg tggcaatatt ttccctactc 300
gag 303

<210> 2022

<211> 238

<212> DNA

<213> Homo sapiens

<400> 2022

gaattcgcgg ccgcgtcgac cattttgtca catagataat taaaagatgt gtattcatgg 60
atcaagactt aaaacattaa agatttttgc tgcttcatca gtgatattct caatgatact 120
ctacattatt ttactgtag ttgtagtgcc agttgagaat gtgacaactt ctaatacagc 180
ttggtgccag ctgccttcag ttttggaat gcatcaacag tattaccac cactcgag 238

<210> 2023

<211> 200

<212> DNA

<213> Homo sapiens

<400> 2023

gaattcgcgg ccgcgtcgac caaatatatt aaatttccca ctgctccaaa ttctttccaa 60
ctcttggtat catgagatta catttctacc aattttatgg gtataaaatg gcatctattt 120
ttattttatt ttattttatt ttattttatt ttattttatt atttattttg agacgtagtc 180
tcactctgtc gccactcgag 200

<210> 2024

<211> 266

<212> DNA

<213> Homo sapiens

<400> 2024

gaattcgcgg ccgcgtcgac ataaataatt gcatattagg agaattggat tactgaggtt 60
tgtattgctg attgaatata ttttgtgtta ttttagaaga taataattag caggattttt 120
aattttatag ttaattcagc tgaatcatta agaagctcgc ctttttgtat ttttttatcc 180
tgtaacaga ctatctagaa aacatgcaaa ttttaactat taacataatc ataataaaga 240
tatcttattt attgccagca ctcgag 266

<210> 2025

<211> 462

<212> DNA

<213> Homo sapiens

<400> 2025

gaattcgcgg ccgcgtcgac cgagtattta tgctttcttg gaataaatct tgagcaaaaa 60
gggcaagctg gtttttgact gcagagagaa ttagtggtcc tgacagccaa gaagactaga 120
gctggatagc tcagatgagt ttcttagaat cattctctct cccttctgta ttgtgataga 180
ctatcactct catgaaggga aagactgttt ttgatgtcta aagtttaggc cagtgtctca 240

catatagaag ggctcaaatg ttcaatttaa taaataaggt ttttgttttag ttttttttcc 300
 taattccgag aaaagacatt agactgatgg ttttaaggaat cgcaaagctc tctgaaatgt 360
 agtaaggatc aacatcagtg tggagaacag tctggagggt catgactcga ggcagggtcta 420
 gaattcaata ttgaattcta gacctgcctg agtgagctcg ag 462

<210> 2026

<211> 312

<212> DNA

<213> Homo sapiens

<400> 2026

gaattcgagg ccgcgtcgac acgagctcgg atccgtgtgg agcacattat ccgggaagac 60
 tacctcgtgg aggccatgga gatcctggag ctgtactgtg acctgctgct ggctcgggtt 120
 ggccttatcc agtctatgaa ggaactagat tctgggtctg ctgaatctgt gtctacattg 180
 atctgggctg ctctctgact ccagtcagaa gtggctgagt tgaataatgt tgctgatcag 240
 ctctgtgcca agtatagcaa ggaatatggc aagctatgta ggaccaacca gattggaact 300
 gtagaactcg ag 312

<210> 2027

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2027

gaattcgagg ccgcgtcgac aatattttctt attattttat aatatctata ttactaaagt 60
 gttttcatct catttccata ggtcataggt tttggatctg ttaaaattgc agcattcata 120
 gctatggtag gaattctgtc tattgtggct caggtgagta tcattttatc tatacttaaa 180
 aaatttaaaa aatatcctga taacatagat ttcacaggaa cccatctcga g 231

<210> 2028

<211> 191

<212> DNA

<213> Homo sapiens

<400> 2028

gaattcgagg ccgcgtcgac atgcaggatga ggatggagca acaggaacgc tcgttcattg 60
 ctgggtggcaa cgcaaaatgg cacagccact gtagaagagt ttggcagttt cttacaaaat 120
 taaacatact cttatcatgc attctagcaa tcatgctcct aggtatttat gcaaatgaat 180
 tgtcactcga g 191

<210> 2029

<211> 669

<212> DNA

<213> Homo sapiens

<400> 2029

gaattcgagg ccgcgtcgac gagaatgaat atgactcaag cccgggttct ggtggctgca 60
 gtgggtgggt tgggtggctgt cctgctctac gcctccatcc acaagattga ggagggccat 120
 ctggctgtgt actacagggg aggagcttta ctaactagcc ccagtggacc aggctatcat 180
 atcatgtttg ctttcattac tacgttcaga tctgtgcaga caacactaca aactgatgaa 240
 gttaaaaatg tgccttgtgg aacaagtggg ggggtcatga tctatattga ccgaatagaa 300
 gtgggttaata tgttggtctc ttatgcagtg ttgatatcg tgaggaaacta tactgcagat 360
 tatgacaaga ccttaattct caataaaatc caccatgagc tgaaccagtt ctgcagtgcc 420
 cacacacttc aggaagttta cattgaattg tttgatcaaa tagatgaaaa cctgaagcaa 480
 gctctgcaga aagacttaaa cctcatggcc ccaggtctca ctatacaggc tgtgcgtgtt 540
 acaaaaccca aaatcccaga agccataaga agaaattttg agttaatgga ggctgagaag 600
 acaaaactcc ttatagctgc acagaaacaa aagggtgtgg aaaaagaagc tgagacagag 660
 agcctcgag 669

<210> 2030

<211> 238
<212> DNA
<213> Homo sapiens

<400> 2030
gaattcgcgg ccgcgtcgac attgcacaat ctagcgaaac cactgaagtt tcatcattcg 60
tttctactga cttccagata atcggagtcac accttctaac cttctagtct cactttctcc 120
aaataatact gtacagactg gggagaatta ttctaccac tccctcattt catgcttgtc 180
tgccttcttc tcgaaggctc gtatgatgaa aattgcacaaa acccagctaa tactcgag 238

<210> 2031
<211> 151
<212> DNA
<213> Homo sapiens

<400> 2031
gaattcgcgg ccgcgtcgac cttgaacact tattgcactt ttattttattg ttaactgtga 60
aaagtacgct cttttattggg ttccctttta tattcttggt ttgttaagaa gaatgggttg 120
tttttatagc aaaactgtta agctgctcga g 151

<210> 2032
<211> 242
<212> DNA
<213> Homo sapiens

<400> 2032
gaattcgcgg ccgcgtcgac atattctaata aagggatatg cctattccct gataagcaga 60
tttattaaaa acttcaatct acctaacagg tcattttgat aaggctatat tattaacgtg 120
caatattcat attcatgtct tttttctttt tctttttctt ttttctgaga ttgagttttg 180
ctctgttgcc caggctggag tgcaatggca cgatctcgcc tccttgcaac ttccacctcg 240
ag 242

<210> 2033
<211> 240
<212> DNA
<213> Homo sapiens

<400> 2033
gaattcgcgg ccgcgtcgac ctagacctgc cttgatacct gtgaaccatt ggaggacttg 60
catctcctat ttgtggaagga atcatcccag actaaaaggc tcctaccact gatcctgaag 120
aaaaacccct tctccttaa aaaagataag tgaaaaccta cataatcttt aacacctctc 180
cttgccctt taatggaatc cttttactat ttcacatgt tattaagcag catactcgag 240

<210> 2034
<211> 241
<212> DNA
<213> Homo sapiens

<400> 2034
gggagttaag ggaatgaagt tcctgtgtga ggctttgagg aaaccactgt gcaacttgag 60
atgtctgtgg ttgtggggat gtccatccc tccgttcagt tgtgaagacc tctgctctgc 120
cctcagctgc aaccagagcc tcgtcactct ggacctgggt cagaatccct tggggctctag 180
tggagtgaag atgctgtttg aaaccttgac atgttccagt ggcacccgcc aaacactcga 240
g 241

<210> 2035
<211> 138
<212> DNA
<213> Homo sapiens

<400> 2035
 gaattcgcgg ccgcgtcgac ctttgcattg aatctattta ctgggttaca ttctatgtgt 60
 agtttgcttt cttcattttt ttttctttta aaatgctcat gtcttattcc aagcaccttc 120
 ctccaaagcc ccctcgag 138

<210> 2036
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 2036
 gaattcgcgg ccgcgtcgac ctgaattagt aaatattagt tcttctctct tatagccata 60
 tgagtttgag aaatttttgt tccgaactgt gtaaaccaga aaaagattag atgttaatac 120
 ttggaagatt tttaaaatct ttttgttttg gtctgttttt gtttataaca gctgtaatga 180
 gatataattc acataccagt ctcgag 206

<210> 2037
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 2037
 gaattcgcgg ccgcgtcgac ctgcctcgag tgtgccgctt ggcatatgc agagaattgt 60
 taccaggggc cgaacatgaa catagtctcc ccagatctta ttttgttttt attgttatgc 120
 tcccaggctt tagcaaagga aattctcgag 150

<210> 2038
 <211> 197
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (146)

<400> 2038
 gaattcgcgg ccgcgtcgac attgattcta gacctgcctc gagtgggaat tcagagctta 60
 acgtgtactg cttgtgtgtg tgcgtgagtg tgtgtgtgtg tatgagagag tgtgtgttcc 120
 gcctcccacc ctctcccat ctgctntggg tatttttgtt tttgtttagt tttagggtta 180
 caacagagag actcgag 197

<210> 2039
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 2039
 gaattcgcgg ccgcgtcgac gcaatttagt gataaatgat tatacatttc aacttaacaa 60
 cagataacaa aaattctcta gttatttatg gacttcgtca tctaaaaatt tggcttgctt 120
 gtgtggactt cttattttaa agtgacacag ctaatcgata tacaagcaca tcattaaaca 180
 tgcagaccaa gccaacacaa tttttccatg agtcacgct cgag 224

<210> 2040
 <211> 294
 <212> DNA
 <213> Homo sapiens

<400> 2040
 gaattcgcgg ccgcgtcgac atctgttatg gcctttctca ttcttctttt ctctgtctca 60
 ggttttctac tgctctctct ctgagctctc cgatcccttt ggccaacaca atcacaggag 120

ggctttgaag taagatgcct gcatcccgga ggagcgcatt ttccagaggc tgggtgcagg 180
 caggcaagaa cacacgggtg cataggacag ccccgggcac ctccccaacg cgggctcagg 240
 agaaacgaaa gacggaggag aacttccagg tctatgagga cccacgact cgag 294

<210> 2041

<211> 236

<212> DNA

<213> Homo sapiens

<400> 2041

gaattcgcgg ccgcgtcgac cttataaaca aggagagttt ttgtgtgtgc gagatctcta 60
 agccagcgtg ggaggagcgt cctcaggata agttattata ttcatttcgt tggtttctct 120
 cctgcccaat tcttggcaca ggcattatgt ttgaagaaac caggataagg tacactgctt 180
 ttgtctgttt aattttttta gttgtttccc ttcactttca gtcttccaca ctcgag 236

<210> 2042

<211> 192

<212> DNA

<213> Homo sapiens

<400> 2042

gaattcgcgg ccgcgtcgac gattacaggc atgagccacc atgccagcc agttttcattc 60
 ttttttaaga ggaaaacaat aactaaattt tcttttacgt taaacattct tctatttctg 120
 ttatccattt gtaattcaaa aaatagtgtg tgttttgttc acgacagaac atcagatacc 180
 aaaccctcg ag 192

<210> 2043

<211> 207

<212> DNA

<213> Homo sapiens

<400> 2043

gaattcgcgg ccgcgtcgac gattgtcttt tcaatttttg agagttttcc tgtggctaca 60
 agccaagtaa cgggttggaa aaagtctgac tgtaagcgtt ggacaccttc atagtgtagt 120
 gttttagtga ctttttttat acggttcttg taaattagat acgtgtagtg gtgtttcaga 180
 atgtttgttt atgcactagt tctcgag 207

<210> 2044

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2044

gaattcgcgg ccgcgtcgac ctgtactgct agtaagtgc tgataacatt ataaactagt 60
 tatatttttc ttatgcgtca tcagctgctg gtggtgactc tcgag 105

<210> 2045

<211> 259

<212> DNA

<213> Homo sapiens

<400> 2045

gaattcgcgg ccgcgtcgac cccatagggg atccgtttta ctacgttatt ctttcagtct 60
 ttcttttttc cctaaataag caaaaacgtg tcttcatttt tccctttcct gttttattta 120
 cacagaaggc atcttagtca gttgtctgac catcgtccct ctagtgggct gcgtggttct 180
 ctgttggaca gatgtaggga gcttatccaa ccagtaccct ctggataggc aggcgcataga 240
 ttacagggcc gttctcgag 259

<210> 2046

<211> 250

<212> DNA

<213> Homo sapiens

<400> 2046

```

gaattcgcgg ccgcgtcgac ggagcaggcc aacgatgacg cgcgcacctt ctacatcatc 60
gagcgcgagc cgctcatcaa cacctacatc tccgtgcccc aggagaacag cacgctcaac 120
tgcgccagct tcacggcggg catcgtggag gcggtgctca cacacagcgg cttccctgcc 180
aaggctcacgg cgcactggca caagggcacc acgctcatga tcaagttcga ggaggcagtc 240
atcgctcgag                                     250

```

<210> 2047

<211> 152

<212> DNA

<213> Homo sapiens

<400> 2047

```

gaattcgcgg ccgcgtcgac atgccccacc tgctctccag cctcacccta actccctccc 60
ccttcacact ttctgttccc ctgaagatgc cactgctggc tgtatcattg tacatgctgt 120
tctttctacc tggaaataccc ttctccctcg ag                                     152

```

<210> 2048

<211> 255

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (108)

<400> 2048

```

gaattcgcgg ccgcgtcgac cacaaaattg ttcttctctg gactgtcttg gctattctta 60
gccaaactgtt cctccatatt acttctagaa ttagaccaac aatttatnaa tcaaacaaac 120
ccaagagcat tgaatttttg attggatttg tattgaattt atagattaat ctggtaaacc 180
atgtcatctt tacaatgttg tcttccaata catgaatatg gtacagctct tcatttactt 240
aggcctttac tcgag                                     255

```

<210> 2049

<211> 121

<212> DNA

<213> Homo sapiens

<400> 2049

```

gaattcgcgg ccgcgtcgac cgattgaatt ctagatctgc ctccagggat aaaccccatc 60
tttcaagctt gcttcttgct tgatgctttc tgctgctttc ttgcttttgt ttcagctcga 120
g                                     121

```

<210> 2050

<211> 258

<212> DNA

<213> Homo sapiens

<400> 2050

```

gaattcgcgg ccgcgtcgac gaaagggaag aattgtttta gaaagacaat atttaaaaca 60
ccgcactgcc aatatattga tcttttatag ttatttecta aaatgctgtt ttcgaaacat 120
tcctttttca ccctgtttgt tggcttagac ccactcctga atctgttaat tggaaagagg 180
ctacagacac cagcagtgtg cgttctgcag gtacacgctg ccaaagtaat tcctgctcat 240
ccatgccctt gtctcgag                                     258

```

<210> 2051

<211> 171

<212> DNA

<213> Homo sapiens

<400> 2051

gaattcgcgg ccgcgtcgac tgaagataaa ataaggttac tttcaatggt tagcagagtc 60
gtattcagaa tgaggggaact attaccatta ctagcaatga gccattcttc cctgagcccc 120
agacatgaac tgcaggaagg gaggggagcc ttgagtcgtg tggagctcga g 171

<210> 2052

<211> 130

<212> DNA

<213> Homo sapiens

<400> 2052

gaattcgcgg ccgcgtcgac gggggaggta tagacaagca aggatactta attaattaat 60
atattaacga agtatagaaa agcaagtata cttaatatat taagaaatga tggctaacat 120
ggcgtcgcag 130

<210> 2053

<211> 292

<212> DNA

<213> Homo sapiens

<400> 2053

gaattcgcgg ccgcgtcgac tgcctgagga tatgggggtg ggggtagggg gtgtggagag 60
aagggttatg ccttctggag gagtggggag aaaaggggaat gattagggaa aaggaacaaa 120
agtaaaatat caagaagcat ctttacaaag cagttctata gctaattcct tttaaagggg 180
aaaggaaagg taaccaaagc aggaaaacgt ttatctctgt gtcttaaaaa aaaattgtct 240
accatacata tatccaaaaa tgtgggaaaa atacttattc caggtgctcg ag 292

<210> 2054

<211> 249

<212> DNA

<213> Homo sapiens

<400> 2054

gaattcgcgg ccgcgtcgac caacaagttt agatattaat agccactcaa agccttcagc 60
ccatataaca tgaagtgcac actgagctct gcacataatg ctcaagctct ataataacca 120
aactctcag cacaagggtg gacaagaaa gaaaaatctc ctgctggcca ggaagaccac 180
aaggaggctt tctgacttgg cctgtgcttt tgatttttaa aacatttttt aaaagaggcc 240
ccactcgag 249

<210> 2055

<211> 227

<212> DNA

<213> Homo sapiens

<400> 2055

gaattcgcgg ccgcgtcgac gccaataccc cttctgtgaa tacaggttat ttcaagcttt 60
cgtcagtggc aaccactctt aggcagcagc aactggtttt ggaaatttcc ctgatgtcag 120
taccacctgg atgtggacct ttgctacctg tattaatacc agtggcctca ttttgctgta 180
tcattacaat ttggcttctt atattaatgt ttgaaaagga tctcgag 227

<210> 2056

<211> 639

<212> DNA

<213> Homo sapiens

<400> 2056

gaattcgcgg ccgcgtcgac atgaatcttg gaaacatgtc tgtgaaggaa ggcagccaca 60

```

gaagacacat attgtatgat tctgtttacg tgaaatgtct agaataggca aatccataga 120
gacaaaaatt agaattagtg gattactgat tgcctagggc tagaggagtt gggagaataa 180
agaaggaagg aatactaact cactggaatt tctttttgag gttataaaaa tattttcaaa 240
ttggatgggt gtaatggtta atttccacca ttataatact aaaaccattg agttatacac 300
tttaaatgag caaatgtgat ggtgtgtgaa ttataggtta ataaagctgc ttaagtacat 360
atatatgtat agcaataatc atttattgga tticagttca acagacactc ctatgagaag 420
ccctttgaga tacgccagac aagagagatg agggctctgcc cttgaaatct gaaaactgat 480
agatcagaaa tctggttagac agtaggtgat tataatgaga tgttctgtaa ctgagatgga 540
gaaaaagatg gtgtacaaat gcaaaggaga gaggtgggct agcgctggct gggactggga 600
ggcagcagga agaaggtggt atctgtgccg gccctcgag 639

```

<210> 2057

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2057

```

gaattcgcgg ccgcgtcgac agacagaagt gtagtatgct gtatgaatat tttatattaa 60
aatatgaagg tttgagagca ggccattggc tactgactgt atttcccttg ctcagtacat 120
ttttgttttc cttttaccat tttatcttgc tttggaggac cttaaagtct actgaaactt 180
acctgagaac cacaggacat ctcgag 206

```

<210> 2058

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2058

```

gaattcgcgg ccgcgtcgac atttgaagca ctctaaagct ccaaaagact ttagacctag 60
ttcatcttca gattatttcc atcttaacgt ttccacctct ttggccccaa aatgggcacc 120
ttttgttgc atttaggaaa gggagzagtt tgggtttttt tgggtttggt tttgtttttt 180
ttgagacagg gtctcactat gtcacccagg ccaggctgga gtacagtggg ccattatggc 240
tcactgcagc tcctaaactcc tgaactcaag cgatcctccc acctcagcct cccaggtagc 300
cgggactaca ggctcgtgcc accaggtatg gctagtgtga tttttttag agacgaaatc 360
ccactctgtg caccggctgg tctcgag 387

```

<210> 2059

<211> 253

<212> DNA

<213> Homo sapiens

<400> 2059

```

gaattcgcgg ccgcgtcgac gttacatgta aatagcagaa taagccatgt tatttcacta 60
ttccatcctt ttgcactcct cctctctata tattatatac gtatatgtat gtgtgtatgt 120
acatacacac acacatatct ttttctcca tgagatgtcc atctcttctt tctctgcaag 180
gctattacct actctcaaa cctcagaaaa gaagctcaag ggacatctcc cttgggacca 240
tcttcaactc gag 253

```

<210> 2060

<211> 200

<212> DNA

<213> Homo sapiens

<400> 2060

```

gaattcgcgg ccgcgtcgac cttgtcttca ggcaggcatt tctgggatct aaactagaaa 60
tccttgaaaa caaatagtag cagccacttt gaggaatgtg cattcactat agtgggttat 120
tatgggggtc ctgcctcctg gctgtgttat gcggagccca ggagtggagg agagccgtgg 180
aaatagatag ggttctcgag 200

```

<210> 2061

<211> 427

<212> DNA

<213> Homo sapiens

<400> 2061

```

gaattcggcc aaagaggcct acaggtgttt tcatttggtg atcagggtg aacagagaga 60
tctcaccatg gactttgggc tgacctggct ttttcttggt gctattttaa aagggtgtcca 120
gtgtgcggtg cagctcttgg agtctggggg aggcttggtg cagcctggg gatccctgac 180
actctcttgt gaaggctcag gcttcaactt cagcgataaa gccatgagtt gggtcaggca 240
ggctccagga aaggggctgc agtgggtctc cactattagt cccagtgggtg agaccacaaa 300
ctacacggag tccgtgaagg gccgcttcac catctccaga gactcgtcca ataacaccgt 360
ctatttacia atgaagagcc tgagagtcga ggacacggcc ctatattact gttcgaagga 420
tctcgag                                         427

```

<210> 2062

<211> 156

<212> DNA

<213> Homo sapiens

<400> 2062

```

gaattcggcc aaagaggcct aattctagca acgttgattt accttacatt cctgctgaaa 60
actaccaaac tcgccagcaa ttccattcca agccagtaga ttctgacagc gatgatgac 120
ccttgagggc attcatggct gaagtggagt ctcgag                                         156

```

<210> 2063

<211> 110

<212> DNA

<213> Homo sapiens

<400> 2063

```

gaattcgcgg ccgcgtcgac gaagaagtta ttctgattca catttaagga ttgacattac 60
ttcaagcaaa attgggaaaag aatatgaaac aaaagatatg tggcctcgag 110

```

<210> 2064

<211> 416

<212> DNA

<213> Homo sapiens

<400> 2064

```

gccctgggat tttcagggtg tttcatttgg tgatcaggac tgaacagaga gaactcacca 60
tggagtttgg gctgagctgg ctttttcttg tggctatttt aaaagggtgc cagtgtgaag 120
ttcagctgtt ggagctctgg ggaggcttgg tacagcctgg agggtccttg agactctcct 180
gtgcagcctc tggattcagt tttagcagct atgtcatgag ttgggtccgc caggctccag 240
ggaaggggct ggagtgggtc tcagctatta gtggtagtgg tgggtggcaca tactacgcag 300
actccctgaa gggccgggtc accatctcca gagacaattc caagaacacc ctgcacctgc 360
aaatggacag cctgagagcc gaggacacgg ccgtttatta ctgttcgcaa ctcgag 416

```

<210> 2065

<211> 516

<212> DNA

<213> Homo sapiens

<400> 2065

```

gaattcggcc aaagaggcct agcttgggct gatggagagg gcctacaggg ccaggccttg 60
aaggggaggg aaattgttag ctacacgacc aagagacaga agagaggaag gagtttgtac 120
ccacaactca gctttatttt atgtaagctc tttctgcaaa gggaaagtag ctctttgtac 180
caaagcaagg gcctctgaat gagagctggg agaggccaga atgggcctgt aagagggtga 240
tgtgtatgag acctgaagcc ctatgccttt gggaaggaga ggaaggacta atatttgtgt 300
ggtacaaagg atgtgcctgg catacccat atcttttaca aagacataaa tgtcttctga 360
ataaaagtat gatgatgatg atcatggtga tgaagatgag ggtgatgatg ttgatgatga 420

```

tgatggtgat ggtgatgatg gtagtatgat aatgctgatg gtggatgatg tgataggagg 480
gtgatggtga tgatgatggt gataagatcg ctcgag 516

<210> 2066

<211> 472

<212> DNA

<213> Homo sapiens

<400> 2066

gaattcgcgg ccgcgtcgac cgcggccgcg tcgactatct atctcttggg tgtttattgt 60
gaggttactc agacttaggc atagaatttg cattgttgct aaagataatt aatgctttac 120
catcctgtta tttttgtgtt tacagctaga tttgtaataa tttctttaat gtcttaacaa 180
agcttgaaca aatccttaga taggaaaagt attcactttt tccaaaggaa atattaacat 240
gctaattact gatatactac cgtaggtttt tcttaatatc tcaaagttaa actgtgaata 300
attttttctc caaaggataa atctaccaag aaactctgat atatgcaaat acttatgcat 360
attaaacttt ctgatatgac atctagagct tttgtgtaca ttttctacaa atagaaacac 420
tcagaagacc tttggttggt aaaagatgca tctgggccag gcaatactcg ag 472

<210> 2067

<211> 254

<212> DNA

<213> Homo sapiens

<400> 2067

gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcattctta atgaaatact 60
cttttttctc ttcagcattg acttggtctg cttcagcatt gataatggct gtatcagcat 120
ctggtgcac ttcagctcct ttagcttcat ttgttaataa cgttctctta tgccttgcca 180
gatatcgacc aagcagaaag atagaacaca gcgtgacaaa tacaactaca gccactattc 240
ctccaaacct cgag 254

<210> 2068

<211> 169

<212> DNA

<213> Homo sapiens

<400> 2068

gaattcgcgg ccgcgtcgac aaaaaagcat aatgaaaaag aaagctggct acaaagctaa 60
ctccaaacac aaagacaaag aacagacagt agtagatgtc actgagcagt taggcgattg 120
caaattagat agtcaggaga aagatgctac atgtgaactt ccgctcgag 169

<210> 2069

<211> 242

<212> DNA

<213> Homo sapiens

<400> 2069

gaattcgcgg ccgcgtcgac agttcagtgg ccatagatat tttactcagt gtcactgtag 60
cacctgtttc ttttaactct ctctccacc gtgagttgtt ctgactgcac ctccactctg 120
ggaaacaaag gcttagctgt acattcatgg ctgagagcat caaaacctgt gttttcatta 180
ttgcgggcag cttctgttgt ttcaacatgc caaggtttta catcctttcc aaaatcctcg 240
ag 242

<210> 2070

<211> 386

<212> DNA

<213> Homo sapiens

<400> 2070

gaattcgcgg aaagaggcct actcgacttt ctctgcacag cagggtccagc atcctttgaa 60
acatgagttc ttaccagcag aagcagacct ttacccacc acctcagctt caacagcagc 120

```

agggtgaaaca acccagccag cctccacctc aggaaatatt tgttcccaca accaaggagc 180
catgccactc aaagggtcca caacctggaa acacaaagat tccagagcca ggctgtacca 240
aggtcctcga gccaggctgt accaagggtc ctgagccagg ttgtaccaag gtccttgagc 300
caggatgtac caaggctcct gagccagggt gtaccaaggt cctgagcca ggctacacca 360
aggtcctcga gccaggcagc atcgag 386

```

<210> 2071
 <211> 144
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (55)

<220>
 <221> unsure
 <222> (63)

```

<400> 2071
gaattcggcc aaagaggcct agagagtggg ggataaccaa ttgtcaaac ataanttttc 60
ccnatattga aataatagtg ccattatata ctaaaatctc atatgcaaag aaatctattt 120
caaaaattct ggggactcct cgag 144

```

<210> 2072
 <211> 624
 <212> DNA
 <213> Homo sapiens

```

<400> 2072
gaattcggcc aaagaggcct aagcgtaggc aacaaagcaa gactccgtct caaaaaataa 60
ataaataaat aaataaaaat aataacaata atgaagaaaa caatccgggt attattgtca 120
gcaataaaat ttcttcaatc aaccatgctt tagtcctggc agttctctat cagttagttt 180
caatcaaaaa gtttgtttat aatttttttt ttttttaaat ttgaaattt ggaaacaaca 240
tcataaatga tgggttagttt tctgcagctc cctatttttg cagatagtct gttgttactc 300
ataattaatt tgaactaaaa agtagtggtg tacgatatca tgggctgtga atgtgtttgt 360
gacttgatct gagaacccac acaccactta ggatgcttct gtaggaaaa tagagtatgg 420
aactcacttg cccacgcttt cctgtctca gtccatgttg gtaggctgca aagtctgggg 480
ctagaaggac actgaacaag acttcagcag tacatgttag tcttccagag ggaaggaata 540
taatagttag gagaataatt cctttcctct gtgactttag gcaaattctt ggctatgctg 600
ttattttattt gggccaccct cgag 624

```

<210> 2073
 <211> 260
 <212> DNA
 <213> Homo sapiens

```

<400> 2073
gaattcggcg ccgcgtcgac gtttgatcga agtctcattt ttgactagaa acagtaaaga 60
gcagctttat taagatcaat ggaatgggtc tgaatgcctg tttctacaga aggattaaat 120
taaaattttt tctttttttt ctttttttga gacagtcttg ctctatcacc caggctggag 180
tgcaagtggc cgatctcggc ttactgcaat ctccacctcc cgagttcaag caattctcct 240
gctcaacca tccactcgag 260

```

<210> 2074
 <211> 142
 <212> DNA
 <213> Homo sapiens

<400> 2074

gaattcgcgg ccgcgtcgac ctgaaaatag aatgagcttg gttaaacacc tctcctttgc 60
 ccttcaccct gactcctgtc actgtctcca tccccaaata aagctgaaat atttttttaa 120
 gttagctgcc gagaccctcg ag 142

<210> 2075

<211> 159

<212> DNA

<213> Homo sapiens

<400> 2075

gaattcggcc ttcattggcct agtattatct actcattgga ctattaggaa caccaagttt 60
 ataatacatt gtctaacacg ctgtatgtat cacttaataa gtgttttctt cctcttcccc 120
 atccagagca cttcttacct tcttccccca cactctgag 159

<210> 2076

<211> 360

<212> DNA

<213> Homo sapiens

<400> 2076

gaattcggcc aaagaggcct agttgggagg agagtaaata ccctgattcc tgctcatagg 60
 aagctggacc aacccaaagg gcctgatatc ccatgaagcc catttttctt tggttagacct 120
 gtccagaatta cagcaggcct tgggtgcatc actaagacaa gggtagaacc agatactgga 180
 agctgagggg aggccttaag aaatagaagg gcagaattgg aagagatggg aacccaccca 240
 tctctgagca taagcccat ctagtcattg tctttggcca ttttaagtct gttagcttct 300
 ttttaaaggct agtgagtata gggtcgacgc aggtctagaa ttcaatcggg tctccctata 360

<210> 2077

<211> 286

<212> DNA

<213> Homo sapiens

<400> 2077

gaattcggcc ttcattggtat ttttagtaga gatgggggtt caccatgttg gccagcctag 60
 tctcgaactc ctgtcctcaa gcgatgcacc tgcctcggcc tcccaaaact ctgggattac 120
 aggcgtgagc cactgctctc ggcctgtgcy ttttttctt gcgggaatgc tctcacttg 180
 ttgcatttct tgcgggtgtt tgcatcccg gccctttgcc gcttgcagca tccaattatc 240
 tctccagtc agcagccact tgccttcag tgtttctgga gtcgag 286

<210> 2078

<211> 326

<212> DNA

<213> Homo sapiens

<400> 2078

gaattcggcc ttcattggcct aatgctggct aataggctact taagttcatt atgctttgta 60
 ttctctactt ttgtatatgt ttgaaggctt ttacaataaa agttttttaa agtaaatgca 120
 gatgctcaca cacacataaa attcaaaacta aagttacaaa gaaaaaatta aaaccacacg 180
 taatactacc agactgaatt cttctttcac agtatttcca gcaaatctgg aatcagaaga 240
 gttgtattca aattctgggt ttgtcaataa tgagctctgt gaactgtac ataacttctc 300
 tggattgatt ctagacctgc ctgag 326

<210> 2079

<211> 285

<212> DNA

<213> Homo sapiens

<400> 2079

gaattcggcc ttcattggcct aaaaaaata aaaaacatat atatatatag ataggtatat 60
 agatatatct atagatatat atgagtgtta tataaatata tctatagcta tgtatatgag 120

tgattttttt taaagttgca gcaccatttg ttgaaaacct atcctttctc cactgaattg 180
 cctttgcacc ttattgaaaa ttagccatac atgtgtgtct cattctggat tctattctgt 240
 ttcattgac tgttgtctc ctctgatgcc cataccacac tcgag 285

<210> 2080

<211> 292

<212> DNA

<213> Homo sapiens

<400> 2080

gaattcggcc ttcattggatt taatattact tacagttttg atatgtgtcc aaataactgc 60
 tcaggccgag gagagtgtaa gatcagtaat agcagcgata ctgttgaaat tgaatgttct 120
 gaaaactgga aaggtgaagc atgtgacatt cctcactgta cagacaactg tggttttcct 180
 catcgaggca tctgcaattc aagtgatgtc agaggatgct cctgcttctc agactggcag 240
 ggtcctggat gtccagtctc tgtaccagct aaccagtcac tttggactcg ag 292

<210> 2081

<211> 574

<212> DNA

<213> Homo sapiens

<400> 2081

gaattcggcc aaagaggcct acatggccga agcaagtagc gccaatctag gcagcggctg 60
 tgaggaaaaa aggcattgagg ggtcgtcttc ggaatctgtg ccaccggca ctaccatttc 120
 gaggggtgaag ctctctgaca ccattggtga cacttttctt cagaagctgg tcgccggcgg 180
 cagctaccag agattcaactg actgctataa gtgcttctac cagttgcagc ctgcgatgac 240
 acagcaaatc tatgacaagt ttatagctca gttgcagaca tctatccggg aggaaatctc 300
 tgacatcaaa gaggagggga acctagaagc tgtcttgaat gccttgata aaattgtgga 360
 agaaggcaaa gtccgcaaag agccagcctg gcgccccagc gggatcccag agaaggatct 420
 gcacagtgtt atggcaccct acttcctgca gcaacgggac accctgcggc gccatgtgca 480
 gaaacaggag gccgagaacc agcagctggc agatgccgtc ctggcagggc ggaggcagg 540
 ggaggagctg cagctacagy tccaggccct cgag 574

<210> 2082

<211> 464

<212> DNA

<213> Homo sapiens

<400> 2082

gaattcggcc aaagaggcct agtaggattc catttccgtt tctaagtttt tagatattac 60
 aaagtaccca tatatatgat aaacacttaa cccagatata aattttctcc tcttttaaaa 120
 aactcagtta tgtttttgaa taataataaa aaatccacca aatgcggggg aaaaacacca 180
 gtttaggaaa agccacgctg tgcaactttc acagataacc acatacgttg gagttgaccc 240
 ttcacatttc tttttttcca aaattagagc aaagagtcag cttaaacaaa aaaaaaacc 300
 tgaattttac aacatggtga ttagtttaaa aaagaaacga gaagggtctc gcgagggaga 360
 cgccacaaac caagcttgga aagcaaaatc atttttgttt ctctttggca acaacaataa 420
 cgaggaatct ttttagtaaa atgaagctaa agcttctcct cgag 464

<210> 2083

<211> 168

<212> DNA

<213> Homo sapiens

<400> 2083

gaattcgcgg ccgcgtcgac caaaagtttg gaggtagcag caagaggcca atagatgtgg 60
 gggtagggaa gaattattctc attcctgtgg tatgttgagc ttccggcatg ttcagaacaa 120
 cctgatgaga aattctacaa cagaaaaaat cgaaccaaga gactcgag 168

<210> 2084

<211> 547

<212> DNA

<213> Homo sapiens

<400> 2084

```

gaattcggcc aaagaggcct aaggttaaga agatgacceca ggttcatggt gtgacagttg 60
ggattagaac ctaggcagcc tgggtccagag tatgtgctct taacaactac agtttgatat 120
catccttttag tttttttttg tcattcagaa cgggtttactt ttgcataatag tattatctat 180
tacagtagtt aagacaatgc agtctcatct aaaccctaac tcatttaatc ctcaagacaa 240
ccatgtggga tagatgtgag aattttatag atgaagtaac aggctcagag aaatagtcgt 300
ctagtccacac aactagtaag tgactgggat tcaaatcaga taggcaccaa aagctcaagc 360
tcttttttga accatttcaa ttcttttttt tggttgtgtt ggagacggag tctcactgtg 420
ttaccaggc tggagtgcag tggcgcgatc tcagctcact gcaagctctg ccttctgggt 480
tcacggccatt ctctgcctc agcctcctga gtagctggga ctacaggcgc ccacccccac 540
cctcgag                                     547

```

<210> 2085

<211> 488

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (67)

<400> 2085

```

gaattcggcc aaagaggcct agaattatat atccatatat atatatatat atatatatgg 60
taaacangca cacacaattt tatccaatgc aaacaaatgt agagcatcag ttacaaaacc 120
ctcgaatagc ttgagagccc caccggctct gccacaccg tgacttcac cactctgacg 180
tcaccgcgg gggctcccc tgcacatttg cacacgatcc ggagagccga aggccgcgtg 240
cttccgtgca catgggctgt aatcatttgt agtttccaaa gacacgtctg catttgaatt 300
tctagatttt cgaggtaagg agtttttttt taattgggtg tttggaaaat cacatcatgc 360
ctagaactcg aaattgaatt agcaagaacc gactgtttgc attttccata taccctttta 420
tctgctcttt ttaaattgtt aattctaata atttcaaaat gcattcactg aagaaatgga 480
cactcgag                                     488

```

<210> 2086

<211> 513

<212> DNA

<213> Homo sapiens

<400> 2086

```

gaattcgcgg ccgcgtcgac ctcgagcccg gaccaaacac acaggaacca ggagtggacc 60
tgctggggct ggaggattat gaaataggaa gcagggagct cagatacctc tgggtggcctc 120
caactgcagg acaactctca gaattgtcaa actgaaccct taaggaggatg tcacccaaaa 180
agcccacata ggaagtcgac acccacaata ataatattg caaacaanaag ttctcacata 240
cacttcacac tcattcatac ttttctctg agaaccgaga aagcctggct ccaaagagtc 300
tcagattctc atgaaaagta gagatcttag acacagcttg ttcaacgaca ggggtcatac 360
gcctgggtca agacaatcaa tttgccttgt caagcaatac caaataatc atctggcttg 420
ttacaaaagt atctccaggc tccaaggga gcagaagggg cccggcagcc tgcacagcct 480
aaaccgtcga ttgaatteta gacctgcctc gag                                     513

```

<210> 2087

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2087

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacactgc ctcgagccgt 60
gcagaatata ttatcatggt aaatacagtt acaaggctgc ttctatttta tttatttttt 120
gagacggagt ctactctgt tggccaggct ggagtgcagt ggtgcgatct tggctcactg 180

```

caacctccgc ctccctgggtt caagcaattc tcctgcctca gcctcccaaa gtgctgggat 240
 tacaggcgtg agccactgcg ctcagcagta ttgtcatttt ctaatatattc tatttactgt 300
 tggaggagcc tcgag 315

<210> 2088
 <211> 501
 <212> DNA
 <213> Homo sapiens

<400> 2088
 gaattcagcc aaagaggcct aattgtgatt taatgtaaat aaagggttgt atagtacttt 60
 ttagatttctt aagtatgaag aaatgggttaa actttttatt ttgttagaaa ctgttatatt 120
 ttgagtgtaa tatttatgggt ttatagcaaa atgaatgtgc ttattgttga atgcatgtat 180
 ttagaagcct ttactcagcc cctgtgttct gtgctaggag cttgagctct acaggtaagg 240
 cagagctacc ggtgaatgaa aggaaatcat gtcagtgtgaa aatcatgggtg gaaagcccct 300
 ggcacacat gtgcattgtg taggcaggac ctgagctgcc tccgctgcag gttcagatgc 360
 accgctgcag ctgtccttca gttagttcac agggctgcaa gaggaggaca catccctcca 420
 gaaaacagcc tgagccggga actggctgtg ctaaagagca ctgctatcaa gttgaggaga 480
 gagggcttcc gtgcactcga g 501

<210> 2089
 <211> 465
 <212> DNA
 <213> Homo sapiens

<400> 2089
 gaattcggcc aaagaggcct agaaccggtg ccagcactct gcgaagtacc caagaatccc 60
 ctcggttttct tttttcctct gatcatacca tcatcacctc acaacttctt cactttctct 120
 tctcaagaat attaatattag tttttcccat ttaattttta gaaaaataaa aggaagaaaa 180
 tagcctttta atgtctgtgt gcttggcact ttccatgtta cttgtttcca tttgtagaat 240
 aacctgtga tacggctgtt aactattagt tcccttttg gaagatgagg aaattgaggc 300
 tcttccttca gtagaacctg aagaatgagt tcttcatact tggctaattg agataagtgt 360
 gtgttggggg aggcattcca ggtcagaggc tatccagaag ggcaactaa gaaggaaagc 420
 tgggcctgcg aaaaacacac gcggaaccgc agcagccac tcgag 465

<210> 2090
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 2090
 gaattcgcgg ccgcgtcgac aaataatatt tgcagtcaaa tggtttttct tgctgtaagt 60
 cctgtttag ctatgttttag ggtagtgtt ctcacttacc ttggagtgc taagacttac 120
 ctacaggct tgtttaaaaa gtccagattc ctacgtttgt acccagggat tgcctcaggt 180
 ggtatgggt gtggctcctg agtcactact ttataaata gtggttcaga gaccacagag 240
 agagactgct tcatcgaatt ggaagtactc gag 273

<210> 2091
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 2091
 gaattcgcgg ccgcgtcgac cacaagaaag acgtggctct gacagacaga caatcctatt 60
 ccctacaaa atgaagatgc tgctgtgtct gctgtgtttg ggactgacct tagtctgtgt 120
 ccatgcagaa gaagctagtt ctacgggaag gaatctcgag 160

<210> 2092
 <211> 293
 <212> DNA

<213> Homo sapiens

<400> 2092

```
gaattcgcgg cgcgctcgac gagattaaga aatacacaac gctgtcctat cgagcaccag 60
aaatgggtcaa cctgtacagt ggcaaaatca tcactacgaa ggcagacatt tgggctcttg 120
gatgtttgtt gtataaatta tgctacttca ctttgccatt tggggaaagt caggtggcaa 180
tttgtgatgg aaacttcaca attcctgata attctcgata ttctcaagac atgcactgcc 240
taattaggta tatgttgga ccagaccctg acaaaaggcc ggaatgtctc gag 293
```

<210> 2093

<211> 262

<212> DNA

<213> Homo sapiens

<400> 2093

```
gaattcgcgg cgcgctcgac ccaaccacca agagaactat ttaccctgtt tgtagtgtac 60
acaacctttt cttttgtaag tcataatttac ctagattttg ttcaagaaaa tctgggtccc 120
acttagctgt tttagaaact agtacagaca gagactctcc tgaggaaatt agagctttta 180
tgattagaaa catgcttgte taaaaatgag ggtcttagaa atcacaaat tgacctttat 240
gatgttgccc cctaagctcg ag 262
```

<210> 2094

<211> 197

<212> DNA

<213> Homo sapiens

<400> 2094

```
gaattcgcgg cgcgctcgac cttacattat cttcttgatt atttttcttt aagatgcaag 60
tccatggatt ctattctgtt aggtattttt ctttctttcc tttttatttt ttagagacaa 120
ggactcactg tgttgcccag gctgggtattg aactcctggg ctcaagtggg cttctcactt 180
cagcctcccg cctcgag 197
```

<210> 2095

<211> 190

<212> DNA

<213> Homo sapiens

<400> 2095

```
gaattcgcgg cgcgctcgac aaaatttctca ggctttacag caagcaaact tcactatgat 60
ttttacaatt ctgattctgt atccccctggg ggttatccca gttgcttctt taggatgggg 120
tttattacgt tgtacatata tcccgatgtg tctgtgtgaa tctttgtctt ttttggggga 180
ggggctcgag 190
```

<210> 2096

<211> 222

<212> DNA

<213> Homo sapiens

<400> 2096

```
gaattcgcgg cgcgctcgac ggatatagaa ccttggacat ccattgcatg aagtattcca 60
ttcatgaagg acagactgtt caagttgatg accactactg tggtgaccag cttaaaccctc 120
ctaccaaga actatgccat ggttaactgtg tcttcacaag atggcattat tcagaatggt 180
ctcagtgttc caggagtgtg ggaggagggg aaaggtctcg ag 222
```

<210> 2097

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2097

```

gaattcgcgg ccgcgtcgac tgaaggattt tggactcttg tgaatgggtg actggacttg 60
gctttacaga gttgggtgct tttttctctc tgcaattacc tgcataagca ttttgtgctc 120
accacgaagg atggtctctg ccttctcttg tgggtgtatg ccactctgaac ctaggaacta 180
cctcgag 187

```

<210> 2098
 <211> 235
 <212> DNA
 <213> Homo sapiens

```

<400> 2098
gaattcgcgg ccgcgtcgac gtaaaagcta aaatccctat aagaccctgt gtgataggcc 60
catgattcat ttcttgacct cttttctgct gcaactcttg tcctctacc cattcattcc 120
ctctttgcta tcccttgaac atgtcaggca tgctcctgcc ttggtgagtg gtggctttag 180
ctcttctgtt tgtaaacctc ttgccacagc taaccctta actctccac tcgag 235

```

<210> 2099
 <211> 199
 <212> DNA
 <213> Homo sapiens

```

<400> 2099
gaattcgcgg ccgcgtcgac tatatatata tatttgratg tatacatata tacatcctct 60
atttgacagg ggaagaagag ggtgtctggc atttattagg gacctaaata agttcagaat 120
attatgttta atctccttga ctacctattt agttacgtat ctctccact ttgctgatga 180
gaaaaatgag gctctcgag 199

```

<210> 2100
 <211> 211
 <212> DNA
 <213> Homo sapiens

```

<400> 2100
gaattcgcgg ccgcgtcgac acaagatccc gaaggacagc atgacgcttc tgccctgctt 60
ctacttcgtg gagctgccca tagtggcttc ttccatcgta tccttgact tcctggagct 120
gaccgacctc ttcaagccgg ccaagggtgg cttccagtgc tatgaccgca ctctctccat 180
gccctacgtg gagaccaacg aggagctcga g 211

```

<210> 2101
 <211> 223
 <212> DNA
 <213> Homo sapiens

```

<400> 2101
gaattcgcgg ccgcgtcgac tgaaacattt ttgatacata acagacctca gtctttttta 60
aaaattaata tattttcagg cgtatttttg tacagtgaag agggaaacatt cttgctgtgt 120
tttttcagta agactttcag gcacttcttc ctttttgatt tctttttttt cctctgtttt 180
ttagcatgca agtatgttgg tacgttatgt cctggttctc gag 223

```

<210> 2102
 <211> 256
 <212> DNA
 <213> Homo sapiens

```

<400> 2102
gaattcgcgg ccgcgtcgac cataaatttt cttcacccta aatattccgt tttgatagtg 60
aagattgggt tcctgaactt tcgattcaaa ctagaaatcc actatcattt atttatttat 120
tttttatttt ttgagacaga ggcttgctct gtcgccagg ctggagtgtg ttggtgcgat 180
ccctcctagc cttttctgtt ccgctttgct cttgttctca tatctccagc catctctggc 240
tcacaccgac ctcgag 256

```

<210> 2103

<211> 286

<212> DNA

<213> Homo sapiens

<400> 2103

```

gaattcgcgg ccgcgctcgac aaatgaagtt cgttctgctg ctttccctca ttgggttctg 60
ctgggctcaa tatgaccac atacttcaga tgggaggact gctattgtcc acctgttcga 120
gtggcgctgg gttgatattg ccaaggaatg tgagcgatac ttagctccta agggatttgg 180
aggggtgcag gtctctccac ccaatgaaaa cgttgtagtt cataacccat caagaccttg 240
gtgggaaaga taccaaccaa tcagctataa aatctgcaca ctcgag 286

```

<210> 2104

<211> 238

<212> DNA

<213> Homo sapiens

<400> 2104

```

gaattcgcgg ccgcgctcgac gaaggcaagc ggtgattggt tgtagacggc gctttgtcat 60
gggacctgtg cagtggggag tattgtttt cttttttttg gccgtgcacg aggccttggg 120
tgggatgttg aaggaggagg acgatgacac agaacgcttg cccagcaaat gcgaagtgtg 180
taagctgctg agcacagagc tacaggcgga actgagtcgc accgatcaat ctctcgag 238

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<210> 2105

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2105

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gaattcgcgg ccgcgctcgac gagagataat aattgttcaa cctgaattga aatcacttgc 60
actgggtttc cactcaatgg ttatacgagc actaggagga attctagctc caatatattt 120
tggggctctg attgatacaa cgtgtataaa gtggtccacc aacaactgtg gcacacgtgg 180
gtcatgtagg acatataatt ccacatcatt ttctcagat tccagttcag aaatgagcat 240
tctcttcacc atcgcacact cagcaaaatc tgattcccct gagctcgag 289

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<210> 2106

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2106

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gaattcgcgg ccgcgctcgac cgattgatta ttcaaccagg atacctaat caagaactcc 60
agaaatcagg agacggagac attttgtcag ttttgcaaca ttggaccaa tacaatgaag 120
tattcttctg gtgtcttgtt tttggctgtc ctgggcacag aattgctggg aagcctctgt 180
tcgactgtca gatccccgag gttcagagga cggatacagc aggaactcga g 231

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<210> 2107

<211> 212

<212> DNA

<213> Homo sapiens

<400> 2107

```

gaattcgcgg ccgcgctcgac cgtcgattga attctagtgt tgtctcctag atgttctatt 60
cgaggataaa ttatctattc ataatttttg ttcttctttc tagagagggt ggggtgtctga 120
tgtctctagt cagccatcct gaaccagaat cccaccata ttttaaatcc ctgcttgttg 180
ccctggtatt tgacatcccc aatcactcg ag 212

```

<210> 2108

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2108

gaattcgcgg ccgcgtcgac ctctgaatca caccacattc tgtctttttc cacacaactc 60
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 tcttccaaca ttctcttgac taatgtaaaa ttgacgtttg gtgctctgtt tctgtgcctt 180
 tgtgcctatg cactaccttt ccatttcagt gctgaatcac ggacactcga g 231

<210> 2109

<211> 167

<212> DNA

<213> Homo sapiens

<400> 2109

gaattcgcgg ccgcgtcgac agaaattagg attaccgaaa atactgaaga aagactacct 60
 ctgattggac tcttctcaag gaattaataa ttcaagaact aaggaaagaa aaaagtgtatt 120
 atatgaaaat actgaagttg atcgtagcag ctgaaggcat tctcgag 167

<210> 2110

<211> 300

<212> DNA

<213> Homo sapiens

<400> 2110

gaattcgcgg ccgcgtcgac cgtcgattga attctacacc agctaacaga aaaaaagttt 60
 catcaaatgt tattatatag ttcattgggac caccagaga tccagagaat cagatttgaa 120
 ggctacacag tcaagagttt tgccaggact gtgctgggtg gaccactctt gcactggctg 180
 tgctggacgt ttgactttcc tattaggagt tctgaaacag ctccctctgc agggcagatg 240
 gctttcaccc aggtcatgat aaaatccgcc tggcacctgc ctccctcacag tcacctcgag 300

<210> 2111

<211> 152

<212> DNA

<213> Homo sapiens

<400> 2111

gaattccggc ccgcgtcgaca gttaattgac ttatgtcatt tggagcaatg aaactattaa 60
 caccagggtat attcagttcc tgcccttacc tatattttct tatcttggaa ggggattgct 120
 gtccctcacc atttatctca cagcaactcg ag 152

<210> 2112

<211> 209

<212> DNA

<213> Homo sapiens

<400> 2112

gaattcgcgg ccgcgtcgac cagctttgtg aagtcctctg tctctgtggg tctatgagtc 60
 agcagcaaca ttggcctaac ctccgtccca gcctcctggc tcaccacatg tgtacagtgc 120
 tgtttgcagt tgtactcatt atccatccat ctctctgcca tccccagca tcgctgggtg 180
 taaaacgcaa actccccacc gacctcgag 209

<210> 2113

<211> 265

<212> DNA

<213> Homo sapiens

<400> 2113

gaattcgcgg ccgcgtcgac cctagggcct aaagatgctg aggtctgtat ggaattttct 60
 gaaacgccac aaaaagaaat gcatcttccct gggcacgggc cttggaggag tatatattct 120
 ggggaaatat ggacagaaga aaatcagaga aatacaggaa agggaggctg cagaatacat 180

tgcccaagca cgacgacaat atcattttga aagtaaccag aggacttgca atatgacagt 240
gctgtccatg cttccaacac tcgag 265

<210> 2114

<211> 292

<212> DNA

<213> Homo sapiens

<400> 2114

ggtctactac ttcacatggt cttgtgacca atacagctgc gccctgaccg gccctgtggt 60
ggacatcgtc accggacatg ctcggctctc ggacatctgg gccaaagactc cacctataac 120
gaggaaagcc gccagctctc ataccttctg ggtcaccttc caggtgcttc tgtacacgtc 180
tctccctgac ttctgccata agtttctacc cggctacgta ggagggcatcc aggagggggc 240
cgtgactcct gcagggggtg tgaacaagta tcagatcaac ggctctctcg ag 292

<210> 2115

<211> 145

<212> DNA

<213> Homo sapiens

<400> 2115

gaattcgcgg ccgcgtcgac caataaagtt caagaaaaaa gaggtgctgt ctatgaacga 60
gtaaccacaa ttaatcaaga aatccaaaaa attaaacttg gaattcaaca actaaaagat 120
gctgctgaaa gggagggtac tcgag 145

<210> 2116

<211> 437

<212> DNA

<213> Homo sapiens

<400> 2116

gaattcgcgg ccgcgtcgac gcttcattga aaagtacctc tactctggct atgctgaact 60
ttgggtcaaag tgctattttc agtgctcggt taacagctat aatgggtgctc gccagtcagg 120
gaattgtggc aggtaccctt actgttggag atctagtaat ggtgaatgga ctgctttttc 180
agcttttcatt acccctgaac tttctgggaa ctgtatatag agagactaga caagcactca 240
tagatatgaa caccttgttt actctactca aggtagacac ccaaattaaa gacaaagtga 300
tggcatctcc ccttcagatc acaccacaga cagctaccgt ggcctttgat aatgtgcatt 360
ttgaatacat tgagggccag aaagtcctta gtggaatata ctttgaagtc cctgcaggaa 420
agaaaggggc gctcgag 437

<210> 2117

<211> 249

<212> DNA

<213> Homo sapiens

<400> 2117

gaattcgcgg ccgcgtcgac gcatactcag ctttttactt agtgctcagtt gaggcatact 60
ctcaaaagtt ttttccctta aaatatcttt caagttatta ctggtatttg aaatttcaag 120
tttagaaatt catttctttt taactcaaag tgcaaatttc atataatgat tatgatggtt 180
ttagtgtcca tatttttctg gcttcactta tcatctcttt cagcagtagc taccacacgt 240
caactcgag 249

<210> 2118

<211> 211

<212> DNA

<213> Homo sapiens

<400> 2118

gaattcgcgg ccgcgtcgac gatccgtgcg tgaagtaggc atatatcact aagctgtggc 60
tggaattgat taggaagcat ttggtagaag gactgaacaa ctgttgggat atatatatat 120

atatataatt tttttttttt aaattcctgg tggatactgt agaagaagcc catatcacat 180
gtggatgtcg agacttcacg ggctactcga g 211

<210> 2119
<211> 318
<212> DNA
<213> Homo sapiens

<400> 2119
gaattcgcgg ccgcgtcgac ctctgcggca gagtccttag tggaggggtt tacctggaac 60
attagtagtt accacagaat acggaagagc aggtgactgt gctgtgcagc tctctaaatg 120
ggaatttcca ggtaggaagc aacagcttca gaaagagctc aaaataaatt ggaatgtga 180
atcgcagctg tgggttttac caccgtctgt ctcagagtc caggaccttg agtgtcatta 240
gttactttat tgaaggtttt agaccatag cagctttgtc tctgtcacat cagcaatttc 300
agaaccaaat cgctcgag 318

<210> 2120
<211> 401
<212> DNA
<213> Homo sapiens

<400> 2120
gaattcgcgg ccgcgtcgac cggtattggc aaatacatat aaataaacat ataaccggaa 60
cacgtttttc ccttttatcc aatggaaata cgatcaagca tcactccttag cagaagacta 120
ccagacactt gtagggacac gaaaagtgat aataaaaaca atttatttat tgaatgcttg 180
ctatagacca gatgctcttc taagcacttt gtaattattt tatcttgaaa gcagtcctgt 240
atttataatc attacctctt cttacagatg tgggaagacgt gactcagttt cctgattacc 300
cagggtcaca taacatgtgt ggagaaggca ggatttacca cctcagtcg cagttcatgc 360
tcttaacat aatgctgtac tcctcaaacc tgccactcga g 401

<210> 2121
<211> 302
<212> DNA
<213> Homo sapiens

<400> 2121
gaattcgcgg ccgcgtcgac ggggtaggtg ggccgcacag ctggggactg aggggtgctgg 60
ttgctgtgga caggcttgga gccgtttttg gctggagact ggctgacttc actgtctgtg 120
gaacgtcccc tcttcttacc atcttcagag ttttccgtgg tacagtgggc tgggctgggc 180
gggatgggag agctggaggt ggttgagggt ggctgtgtgc tggactggtt gaagatctca 240
tcctccatgt ggctgtggct ggggggggag gtggcgacca gcgcctgtgg aatgtcctcg 300
ag 302

<210> 2122
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2122
gaattcgcgg ccgcgtcgac ctttgtggca ttctgaaata ggattcatga tgatgcctgt 60
tgatcttagg gacactacct cacctgccag tatctttggg gctgtgtcct tcaaggacat 120
gtccccagac tgctgtgcag tgtcattttt tgtgtttggt ttggtggtgg cttcttcccc 180
cctcgag 187

<210> 2123
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2123

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gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgagggccat tctcctctg 60
atgttggttcg ctttattatt tcatttattg tgttttttcg ggaatccgga tctacacggg 120
acacaaaaac tggttgcaca gcccgtaaca gtctgccaat cagagggact tgtgcattct 180
caggttctcc ctata 195

```

<210> 2124
 <211> 358
 <212> DNA
 <213> Homo sapiens

```

<400> 2124
gaattcgcgg ccgcgtcgac aatacctcca aaatacccct gacatttgc ccgttgccat 60
tctccttttc cagtcttagt caccagttac ctgttccact actaacaggt tgccttactt 120
tctactttca tttgttcaat caattttcta cctgttacc ataatactcc taaaacacag 180
gtctgatcca gtgaagcctg acagaaaagc ttctctttcc tcattgcaca tagaataaag 240
cctcaatttt tatatttttc aagggacttt gcaatcttaa ccagttctac ttgttcattc 300
tatctcttac ctgtccatgc acctcatatt ttgttcattt cttctgtac cccctccg 358

```

<210> 2125
 <211> 226
 <212> DNA
 <213> Homo sapiens

```

<400> 2125
gaattcgcgg ccgcgtcgac tgtttatttg ccacagatca aaggttcaca aagtatatca 60
aatttacatc tacttggggt accttgatag attattattg tttttctttt atctttccct 120
tcaggaattt ggaaactcgt tgtcactttt ttttaattta aaaatactaa attgtaatag 180
ttttcttttg ccaaatatgt acgcacacat ttgggttctc cctata 226

```

<210> 2126
 <211> 183
 <212> DNA
 <213> Homo sapiens

```

<400> 2126
gaattcgcgg ccgcgtcgac gtgaatttaa ggttggtgatt tttgttttg acttttttaa 60
gactttatct atttagagca gcttttaggtt cacagcaata ttgagaggat ggtacagaga 120
tatctcatat acttctact cccacacata cagaggctg catttttagt aggggccctc 180
gag 183

```

<210> 2127
 <211> 343
 <212> DNA
 <213> Homo sapiens

```

<400> 2127
gaattcgcgg ccgcgtcgac accagttgct acccaagcat tgtgccaaaa ctatcagtca 60
agcagtgaat aagaaatcaa aaaagcagac tggtaagaaa ggggaacctg aaaggagaga 120
accaggtggt gagagcatga ggaaaaacag gctggttgtg accaaccttg ataaattgca 180
cactgcactt tctgagttat gcttctctat aaattatgta ccaaacatgg tggatggga 240
acataccttt accccacgag aatatttgac ttctcatctg gaaatacgct ttaccaagtc 300
aattgttggg atgactatgt ataataagc cacacacctc gag 343

```

<210> 2128
 <211> 242
 <212> DNA
 <213> Homo sapiens

```

<400> 2128
gaattcgcgg ccgcgtcgac gctgtattca ttttccatat agaaactcta taaccattaa 60

```

```

gcaataactc cctcattctc ccttcacttt cagctcctgg taaattctgt tcaacttcct 120
gtatgaattt gccatttcta gatatttcat gtaaattgaa tcatacaata tttgtccttt 180
tgtgtcttct tatttcattt agcataatgt tgggtttcat ccatattgag gcaatcctcg 240
ag 242

```

```

<210> 2129
<211> 142
<212> DNA
<213> Homo sapiens

```

```

<400> 2129
gaattcgcgg ccgcgtcgac cgaaaaatta tttattcaag tgaaagggaa gaaaagtcgt 60
catcaaaaaag aggattccct ttcttgagat aatagtgctt atttatcctt ggatgatgat 120
gctttcacgg ctcaccctcg ag 142

```

```

<210> 2130
<211> 298
<212> DNA
<213> Homo sapiens

```

```

<400> 2130
gaattcgcgg ccgcgtcgac ctgaataatc tcagttaacc tgtctttaag ttcactgact 60
attctgcctg cttgaatctg ctattgaaat cctctagtga tttttttatt aaaaaaaaaa 120
aatggagaca cagaagctgg gcagcctcca tggggcttcc acacactggg gcttgcttcc 180
ggcccccaag gactccaagg ggatgagtga atttaactgg caaggagcaa tctgctgtca 240
ccctgggctt ctggaatcct ggcaggaaga ggccccacga ccaccacgga cactcgag 298

```

```

<210> 2131
<211> 187
<212> DNA
<213> Homo sapiens

```

```

<400> 2131
ggtctcaaac tcctgggctc aaatgatctg cccaccttgg cctctcacag tgctgttatt 60
acaggctaca gccaccgcac ctgacctccc tagcacattt aaattttggg atgtttctag 120
tgataatctc agtattgtat atttgttttg tttttttgtg gggaaaaggg aaacaggcgt 180
gctcgag 187

```

```

<210> 2132
<211> 376
<212> DNA
<213> Homo sapiens

```

```

<400> 2132
gaattcgcgg ccgcgtcgac cccatcagct gctctgaagc tccatgggtc ccagaatctt 60
cgctcctgct tatgtgtcag tctgtctcct cctcttgtgt ccaagggagc tcacgctcc 120
cgctggctca gaaccatggc tgtgccagcc ggcacccagg tgtggagaca agatctacaa 180
ccccctggag cagtgtgtgt acaatgacgc catcgtgtcc ctgagcgaga cccgccaatg 240
tggtccccc tgcaccttct ggccctgctt tgagctctgc tgtcttgatt cctttggcct 300
cacaaacgat tttgttgtga agctgaaggt tcagggtgtg aattcccagt gccactcatc 360
tcccaactca ctcgag 376

```

```

<210> 2133
<211> 390
<212> DNA
<213> Homo sapiens

```

```

<400> 2133
gaattcgcgg ccgcgtcgac caacaagatc tccagacctt acaagatggc cgccaccag 60
actgggacct gcctcatggt ggcagccttg tgctttgttc tgggtgctggg ctccctcgtg 120

```

```

ccctgccttc ccgagttctc ctccggctcc cagactgtga aggaagaccc cctggccgca 180
gacggcgctc acacggccag ccagatgccc tcccgaagcc tcctattcta cgatgacggg 240
gcaggcttat gggaagatgg ccgcagcacc ctgctgcca tggagcccc agatggctgg 300
gaaatcaacc ccggggggcc ggccagagcag cggccccggg accacctgca gcatgatcac 360
ctggacagca cccacgagac cagcgtcgag                                     390

```

<210> 2134

<211> 235

<212> DNA

<213> Homo sapiens

<400> 2134

```

gaattcgcgg ccgcgtcgac ctttcatttt ctcaatattc tgcacagatt taaatactta 60
ttatttgtaa gacattccta ggtacttgat atttttgatg ctgttgtaaa tgatgccttt 120
aacatttatt tcactttggt tgttgctgac atatagaaat aaaactggct gggcacgggtg 180
gtcacacct gtaatccag cacttcggga ggccaaggcg gggcaaatcc tcgag          235

```

<210> 2135

<211> 225

<212> DNA

<213> Homo sapiens

<400> 2135

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gaattcgcgg ccgcgtcgac ataaaaccgg cccggttctg tggaaagtgg gcggcggagc 60
cagggtcctt ggaatggcgg agactctgtc aggcctaggt gattctggag cgggcggcgc 120
ggcggctctg agctccgct cgtcagagac cgggacgcgg cgctcagcg acctgcgagt 180
gatcgatctg cgggcggagc tgaggaaacg gaatgtggac tcgag          225

```

<210> 2136

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2136

```

gaattcgcgg ccgcgtcgac gaaagtctct agaaagtggg tatgtggctg gcctcagata 60
aggataaatt gctgagaaga aggagtggg tttttttgt gttttttgt ttcttgtttt 120
tgagacgggg tcttgctctg tctcccaggc tggagtgcag tggatgcgac acagctcact 180
gcagctcaa cctcccata ctcgag          206

```

<210> 2137

<211> 156

<212> DNA

<213> Homo sapiens

<400> 2137

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gaattcgcgg ccgcgtcgac ccaactgtca gccagaatgg tactcccaat ttgtttaatg 60
ttttcgctgc tagttgcagt aattcctttg cactcttccg aaaggccaca gcttccacag 120
tgttatcatc aaggtactgc tgaaagaatg ctcgag          156

```

<210> 2138

<211> 441

<212> DNA

<213> Homo sapiens

<400> 2138

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gaattcgcgg ccgcgtcgac gaagcatttg gcacagaagt gctgccaggg agaaactaag 60
ttgctgaacg gaactctcca acaataaata catttgataa gaaagatggc tttaaaagtg 120
ctactagaac aagagaaaac gtttttctact ctttttagtat tactaggcta ttgtcatgt 180
aaagtgaact gtgaatcagg agactgtaga cagcaagaat tcagggatcg gtctggaaac 240
tgtgttcctt gcaaccagtg tgggccaggc atggagtgtg ctaagggaatg tggcttcggc 300

```

tatggggagg atgcacagtg tgtgacgtgc cggctgcaca ggttcaagga ggactggggc 360
ttccagaaat gcaagccctg tctggactgc gcagtgggtga accgctttca gaaggcaaat 420
tggttcagcca ccatcctcga g 441

<210> 2139

<211> 112

<212> DNA

<213> Homo sapiens

<400> 2139

gaattcggcc aaagaggcca ttcaaaatat gaggaattta ctactttatg tcctgctctc 60
taaactacat cctgaactcg acgtcctgag gtataataaa acagagctcg ag 112

<210> 2140

<211> 128

<212> DNA

<213> Homo sapiens

<400> 2140

gaattcggcc aaagaggcca ttcaaaaaag taggtaaaaa aagaaaagg tagataatct 60
ttcgtatgca aacttttccc ttatattttg tctttcttct ctttttgact ttagtagcat 120
cgctcgag 128

<210> 2141

<211> 190

<212> DNA

<213> Homo sapiens

<400> 2141

gaattcggcc aaagaggcca ttcaaaatag ctaaataattt agaagtatat cttgacacct 60
agcacaaatg ttttggttaa gtatcttaaa actgatggat ggtatggctg gggcagcatg 120
gctcacgcct gtaatcccag cactttggga ggccaaggcg ggtgaaccac ctgaggtcag 180
gaatctcgag 190

<210> 2142

<211> 119

<212> DNA

<213> Homo sapiens

<400> 2142

gaattcggcc aaagaggcca ttcaaacctc agaaggccaa agaggccatt caaacctcag 60
aaggccaaag aggccattca aacctcagaa ggccaaagag gccattcaaa tgcctcgag 119

<210> 2143

<211> 128

<212> DNA

<213> Homo sapiens

<400> 2143

gaattcggcc aaagaggcca ttcaaaaaag gaagacggta ataaatagct tatttccaga 60
attgcctatt gattcttttg gatccttata aaaacaaaat catgcttttt aaatctgtgt 120
atctcgag 128

<210> 2144

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2144

gaattcggcc aaagaggcca ttcaaaactt actgctcatt ttactttttg catggaatac 60

agccatttag tcctaataata cataccaatg agacaattaa aaattggttg gaagatggtg 120
ctcgag 126

<210> 2145
<211> 205
<212> DNA
<213> Homo sapiens

<400> 2145
gaattcggcc aaagaggcca ttcaaaaaat gtatttattt tcagcattaa aatgcttcca 60
aaagatcaag ttgcttttgt ttgtttgttt ttttaaccgt aatgtagatg gagaaattgg 120
aggcaacctc agtataggaa ctgccacttt gagcagttta ggtcttaaag agaaagtcaa 180
tctaatagcca ataggagaac tcgag 205

<210> 2146
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2146
gaattcggcc aaagaggcca ttcaaaaaaa tgaaagcaag ttatgtatgc tattttgtaa 60
ttttctcttt taacattatc tctacctttt catgtcagct cgag 104

<210> 2147
<211> 160
<212> DNA
<213> Homo sapiens

<400> 2147
gaattcggcc aaagccaaag aggccattca aaaactaagg tatcaaattg tagtggaat 60
aatccaggcg actacaatta gcagctttcc ccaactgaag aggcacaaag gtaaagaaac 120
tgccggcaatg aaagctgatt tcttgagggc cactctcgag 160

<210> 2148
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2148
gaattcggcc aaagaggcca ttcaaaatca ttataatatc cagtagctaa cattagatct 60
agcttattat ttcagaaatt aatttaggaa ataattatta aaacatgttg gctacagtag 120
cacttctcga g 131

<210> 2149
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2149
gaattcggcc aaagaggcca ttcaaaagag taatttgtga atttggtttg tatttataaa 60
atttatacct gaaaaatgtt ccttaatgtt ttaaaccctt tactgtgttt ttattcctct 120
aacttcctta atgatcaatc aaaaaagta acaccctccc cgctcgag 168

<210> 2150
<211> 159
<212> DNA
<213> Homo sapiens

<400> 2150
gaattcggcc aaagaggcca ttcaaaaact tcatttgttt gagaaagaat gatattaatg 60

tgctttgtat gectcctttt caggggtgggc atctcccttg cttttgagcg ccacccacct 120
cgtggccttc tggaggccaa gtcgctgtg ctctcgcag 159

<210> 2151
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2151
gaattcggcc aaagaggcca ttcaaaaatg ataaacatac tggctgttgt ggtgacaatg 60
accecaattga tgtgtgtgaa attggaagca aggtcactcg ag 102

<210> 2152
<211> 120
<212> DNA
<213> Homo sapiens

<400> 2152
gaattcggcc aaagaggcca ttcaaaaatg catagacaat ttgaagtttt tgatatattt 60
gtgatattta tcttgagcac tgcaatctca ccccccccg ccaccaagg gaatctcgag 120

<210> 2153
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2153
gaattcggcc aaagaggcca ttcaaaaaaa aaagttacca agccatgagg ttcaacatga 60
ttttggcata cattttgttc ttagaagtat ctggatcaca ggataaaatc agaaacgttg 120
gcacaacct cgag 134

<210> 2154
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2154
gaattcggcc aaagaggcca ttcaaaaaag agtcactcag tatcagggat ctactgtctt 60
tgtttcaaagg tcaataaaaa acctagtctc cttttattct actttctatt cttagctaga 120
atgaaactca gcatattact cgag 144

<210> 2155
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2155
gaattcggcc aaagaggcca ttcaaaaaat atgaagtata taaagcacct atgttatcta 60
ctttactgga tacataagtg ttcagtgaat gggaaacctc tcgag 105

<210> 2156
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2156
gaattcggcc aaagaggcca ttcaaaaatg gagacagcta tttgccttgt actttttcca 60
caattgttgc tgctagtgtg acacatctct agttcagctc ttgccacag actcgag 117

<210> 2157

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2157

gaattcggcc aaagaggcca ttcaaaaatg ttgaaggagt tgggtgttgct gaattgcttt 60
ttaacacaat tcaggcagct gacattgata ccagatctga attctacaaa cctcgag 117

<210> 2158

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2158

gaattcggcc aaagaggcca ttcaaaaaag tgcagacaa aaatttaact ttttatgaga 60
tttcagtttt tgaatacac aactcttaca gcacaaacac tcgag 105

<210> 2159

<211> 156

<212> DNA

<213> Homo sapiens

<400> 2159

gaattcggcc aaagaggcca ttcaaaaatg ggacctgtga agcaactgaa gaaaatgttt 60
gaagcaacaa gattgcttgc aacaattgtt atgcttttgt gtttcattt taccctgtgt 120
gctgctcttt ggtggcataa gaaggacaa ctcgag 156

<210> 2160

<211> 104

<212> DNA

<213> Homo sapiens

<400> 2160

gaattcggcc aaagaggcca ttcaaattac aatttgaaaa gaaaactatt ttttttaaat 60
attccattgt taactgaatg ttactgttcc cactectact cgag 104

<210> 2161

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2161

gaattcggcc aaagaggcca ttcaaaaaag aaacggatga agctttcttc cttggatgtg 60
ttcatcattg gtgcagtagc caaagcgatt gccaccacg tgacctatcc cctgcagacg 120
gttctcgag 129

<210> 2162

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2162

gaattcggcc aaagaggcca ttcaaaagaaa ttaactgaac aaataaaaag tttttgatat 60
aacttcaatt aattgtacca catgctaacc ctgaagagat gtgtagatat cctcgag 117

<210> 2163

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2163
gaattcggcc aaagaggcca ttcaaaatgg agccagttac atacttcac acatttgcaa 60
attctatggt cttttttgca tactttaacg tcactctcga g 101

<210> 2164
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2164
gaattcggcc aaagaggcca ttcaaaaatt ctgactatct ttaagacaaa agtctgttaa 60
acttttttat tgtaaagaat atttattatg cgaatcctcg ag 102

<210> 2165
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2165
gaattcggcc aaagaggcca ttcaaaaaat gagtgttgga cgtcgaagaa taaagttgtt 60
gggtatcctg atgatggcaa atgtcttcat ttattttatt atggaagtct ccaaaagcag 120
aagcctcgag 130

<210> 2166
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2166
gaattcggcc aaagaggcca ttcaaaactag cactttatct taaaaagtaa cttattaatc 60
acacattgat ggtacacctt gtatttagca aatgtttgct cgag 104

<210> 2167
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2167
gaattcggcc aaagaggcca ttcaaaaaca aaggtatggt gtttttcttc cttttgggta 60
aacatatatc ctttatatat atgacatttc atgccacata tgcaaacaca ctcgag 116

<210> 2168
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2168
gaattcggcc aaagaggcca ttcaaaaaac aaagatgtat ggcttatttc aaacatcatt 60
ttacttttga tatatggcgg tatntagcac agccttgggg aacactctcg ag 112

<210> 2169
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2169
gaattcggcc aaagaggcca ttcaaaagaca cagtatacat tcttctttga atctgtgtga 60
tattttgaac tctgtgttga gctcttcaca tcttgaatta aatgaggaaa ttaattgtgt 120
tgatatacct aatgctaaat gacgagttaa tgggcgcagc actcgag 167

<210> 2170
<211> 139
<212> DNA
<213> Homo sapiens

<400> 2170
gaattcggcc aaagaggcca ttcaaaaaat gtgtatagtt atgtgtatac taactctgag 60
tcttggtacc ctggttagtc tgggtgatcc aatacttttt ggtcggattg ccatgcagca 120
tcatgataat gcaactcgag 139

<210> 2171
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2171
gaattcggcc aaagaggcca ttcaaaaaaa tgttctctaa atattttctg cttcttgag 60
gtctcttttt actagatcat ggctgttctt cccaccccat ccctctcgag 110

<210> 2172
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2172
gaattcggcc aaagaggcca ttcaaaaaat aaaaacctag tctcctttta ttctactttc 60
tattcttagc tagaatgaaa ctcagcatat atacactga g 101

<210> 2173
<211> 105
<212> DNA
<213> homo sapiens

<400> 2173
gaattcggcc aaagaggcca ttcaaaaaaa acatttcaga ttttaatccg aatttagcta 60
atgagactgg atttttgttt tttatgttgt gtgtcacaac tcgag 105

<210> 2174
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2174
gaattcggcc aaagaggcca ttcaaaatga gagatataat ttacaaattt ttttattcta 60
tgggttttcc tttcactttc ttgatttcct tggagcacga cctcgag 107

<210> 2175
<211> 145
<212> DNA
<213> Homo sapiens

<400> 2175
gaattcggcc aaagaggcca ttcaaaaaaa cgattggaga aaggtggtaa agctgaacat 60
gaaaatcttt ttcgtgagaa tgattgcatt gtcaggatta atgatggcga ccttcgaaat 120
agaagatttg aacaagcatc tcgag 145

<210> 2176
<211> 122
<212> DNA
<213> Homo sapiens

<220>

<221> unsure

<222> (56)..(57)

<400> 2176

gaattcggcc aaagaggcca ttcaaaaggt gcttcttttt aaaactagaa cttggnnata 60
ttgaatgtgt atttttcttt agtgaaatga tgttttatgt tattatgtgt gaagtactcg 120
ag 122

<210> 2177

<211> 121

<212> DNA

<213> Homo sapiens

<400> 2177

gaattcggcc aaagaggcca ttcaaaatat tttgtatttc aaaagatttc tacttttagc 60
agacaactga aaaagttatt ttctaattct tgaaatgtac actacatccc tcattcctga 120
g 121

<210> 2178

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2178

gaattcggcc aaagaggcca ttcaaaaacg gtgaaagaga atccctgttg tactttatct 60
ttttgtaata ttatttttga atttttcatt atgttgcttt tgaaatttga tgcattcctc 120
ctcgag 126

<210> 2179

<211> 115

<212> DNA

<213> Homo sapiens

<400> 2179

gaattcggcc aaagaggcca ttcaaaaaaa taaaatgaaa aatctttttt taataatttc 60
atccctattt atagttttta tatttaatttg tttttcttat ccaagatata tcgag 115

<210> 2180

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2180

gaattcggcc aaagaggcca ttcaaaaatg cgtttctggt tagctctgat gctcagcact 60
tggcttggag agggaggcca ggaggctggg gccggtttag cgcgtgaact cgag 114

<210> 2181

<211> 144

<212> DNA

<213> Homo sapiens

<400> 2181

gaattcggcc aaagaggcca ttcaaaaata aaagcagagg aagaaaaatt caatagtttt 60
aaactgcttt acaattataa acaaaaaaag attatacaga aaattaactg acaaatgaga 120
aaaatatttg caacaactct cgag 144

<210> 2182

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2182

gaattcggcc aaagaggcca ttcaaaaatt cagagaggat tcattggata gcgttctttt 60
tttaaagaag attgatagat gctggcaaaa ccattgctac tcgag 105

<210> 2183

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2183

gaattcggcc aaagaggcca ttcaaatgat gtgcaaatta gctttttatc ttctagcatt 60
tttttactac ctatatggca tgatctatgt tttggtgagc tcttagaaca acacacagaa 120
gaattgaacc tcgag 135

<210> 2184

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2184

gaattcggcc aaagaggcca ttcaaaacaa ccctgaaatc tattttgaaa agaaaaggca 60
ccagtgatat cagtgatgaa tctgatgaca ttgaaatttc ttccaagtct actcgag 117

<210> 2185

<211> 113

<212> DNA

<213> Homo sapiens

<400> 2185

gaattcggcc aaagaggcca ttcaaatga tgatggttct tcctttattg atatttgtgc 60
ttctgcctaa agtgggtcaac acaagtgatc ctgacatgaa acggcgtctc gag 113

<210> 2186

<211> 113

<212> DNA

<213> Homo sapiens

<400> 2186

gaattcggcc aaagaggcca ttcaaaaata ctggatcttt taaaaaacag tgtcaaataa 60
gcttagtggt aggttggtctg atgagaacca atctaataatg gggagcactc gag 113

<210> 2187

<211> 108

<212> DNA

<213> Homo sapiens

<400> 2187

gaattcggcc aaagaggcca ttcaaaaatg tttgtttcta agtatttttg tattgtgtac 60
attctgtata ttttgttgtt aacatattat ttgagcacia gactcgag 108

<210> 2188

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2188

gaattcggcc aaagccaaag aggccattca aaagacttgg ataacttttg ataaaagact 60
aattccaaaa tggccacttt gttcctgtct ttaatatcta aatacttact cgag 114

<210> 2189

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2189

gaattcggcc aaagccaaag aggccattca aagattccta cagcgaatga tcaccgctcc 60
ctgcacctc ttctgtttt atgggtcagt attacccttc acctgtcgtc tggcaattcc 120
catctctgcc tccaaactag ccctagcccg gagaccctc ctcttctcca actaccaca 180
gctcgag 187

<210> 2190

<211> 110

<212> DNA

<213> Homo sapiens

<400> 2190

gaattcggcc aaagaggcca ttcaaaaaag aatagtagta actgtttcat agcaaacttc 60
aggactttga gatgttgaaa ttacattatt taattacagg gtcctctgag 110

<210> 2191

<211> 106

<212> DNA

<213> Homo sapiens

<400> 2191

gaattcggcc aaagaggcca ttcaaaaaat gaagcttggga aagattttca tggttctctt 60
cttcgatttt atgaaaatgg agaactctgt gatgccaccc ctcgag 106

<210> 2192

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2192

gaattcggcc aaagaggcca ttcaaaaaat ttcagttgga tttttagaag taacttaata 60
ctctaaaatt tatatggaaa aatgaagggtt cccaatttgc tcgag 105

<210> 2193

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2193

gaattcggcc aaagaggcca ttcaaaatat tttcatgttc aaaatttaag ttttacattt 60
ttactactgt taatttaaat aaaatttgtt ctgtggataa aatgagggtg gcagtgagtc 120
tcgag 125

<210> 2194

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2194

gaattcggcc aaagaggcca ttcaaaaata atagaagtat attagttaac aggcaaacta 60
ttgcacataa accaaatctt tgcttaagca aaattttaga tgtattgtaa atgtattaaa 120
tacggactcc tcgag 135

<210> 2195

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2195

gaattcggcc aaagaggcca ttcaaaaaag gcaaaaaaaa ttaacctgga aaaaacattt 60
ctgctatgtt taaatttttt ttggaatga gaatgctcga g 101

<210> 2196

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2196

gaattcggcc aaagaggcca ttcaaacaaa agaggccatt caaactcaga aggccaaaga 60
ggccattcaa aataaagggt agatttgatg ttttttttta gatttatttt tcttactcca 120
ctcgag 126

<210> 2197

<211> 111

<212> DNA

<213> Homo sapiens

<400> 2197

gaattcggcc aaagaggcca ttcaaacatg ataaggatgg tacttgcata tggatgaatta 60
ctactgttga cagtttccgc agaaatccta tttcagtggga caccactcga g 111

<210> 2198

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2198

gaattcggcc aaagaggcca ttcaaaagggt gtggtatcta tctagtcgta aatattttac 60
tgtaaccaat ttcccatcaa accaagagcc atgcaatgct ttaaaagcct ttccagcacc 120
attctcgag 129

<210> 2199

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2199

gaattcggcc aaagaggcca ttcaaacatc tcaggttgct gctgcttgct tagtttaaaa 60
gttcagatct attaatcagc aatgaaattt tatttgggat tcagtgcctc cgag 114

<210> 2200

<211> 100

<212> DNA

<213> Homo sapiens

<400> 2200

gaattcggcc aaagaggcca ttcaaaagct tggtttatga tctttttgct taaattaatt 60
atacatgatt tctagatttt tggtcctcca cactctcgag 100

<210> 2201

<211> 182

<212> DNA

<213> Homo sapiens

<400> 2201

gaattcggcc aaagaggcca ttcaatttct tcataattat tgccatcact acttcactac 60
ttttcaggag aatgaaaaca gctgttggct atttactgca ctcttcact tggctctgtct 120
gtctctgtct tggtagttgc cggtaggacag catggccgtg ccagcctccc actccgctcg 180
ag 182

<210> 2202

<211> 143

<212> DNA

<213> Homo sapiens

<400> 2202

gaattcggcc aaagaggcca ttcaaatga ctaagaaaca ttatcgtgtg tttttttgtt 60
tgtttgtttt ttcatcctt tctctttcct ttctgttcaa aaattcagtt cccatccta 120
gaccagactc ctccatcctc gag 143

<210> 2203

<211> 140

<212> DNA

<213> Homo sapiens

<400> 2203

gaattcggcc aaagaggcct ccagaagcac tgcgtatgaa gattattact accaccctcc 60
tcctcgcatg ccacctccaa ttagaggctg gggtcgtggt ggggggagag gtggatatgg 120
ctacccccca gatactcgag 140

<210> 2204

<211> 113

<212> DNA

<213> Homo sapiens

<400> 2204

gaattcggcc aaagaggcca tcatggagca gctgaaggag ttgaagcaga agggagaccg 60
agacaaagag agcttgaaga aggccatccg agcccagaag aagcggcctc gag 113

<210> 2205

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2205

gaattcggcc aaagaggcca ttcaaatgcc tatcttctcc agtctacaag ttacatgttc 60
ccaccagca ttacagttct tgaacatgtt atttccccac ttactcgag 109

<210> 2206

<211> 123

<212> DNA

<213> Homo sapiens

<400> 2206

gaattcggcc aaagaggcca ttcaaatgtg atcatgagat tgcagcaatt cagtcacatc 60
ttcaatgctt tacttccagt tctagttctc ttctgtttc cacacctagc caacgtcttc 120
gag 123

<210> 2207

<211> 123

<212> DNA

<213> Homo sapiens

<400> 2207

gaattcggcc aaagaggcca ttcaagagc aaagaagaca aaaactcaag gaacatctgt 60

tgagaagaaa aacgcctttt gcatacaagc aggaaaatga gatgttatcc agtactactc 120
gag 123

<210> 2208
<211> 178
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (42)

<400> 2208
gaattcggcc aaagaggcca ttcaaaaata cagtactctt cngtacaaag aaaaaagtca 60
catcacattt aataagatga aaaaagcatt ggcctccatg gtaaccaa atctcagtc 120
aatactttct attatgcaca ataccctgac ttcaattgaa agtgatccac atctcgag 178

<210> 2209
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2209
gaattcggcc aaagaggcca ttctagtctc atcacccaag cttctctgt gtacttcaag 60
taaaaagcca tcatgaaaat ctggttcaca ggcattcctg ag 102

<210> 2210
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2210
gaattcggcc aaagaggcca ttgtgtacaa ctccctatat aaatgcaatt cttcattctc 60
aagaccttat ttgtgtgtt tccccactgg actcttcca aatgcaaacc aggcccagtc 120
gcactcgag 129

<210> 2211
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2211
gaattcggcc aaagaggcca ttcaaatgac taattataat atttgtgtcg gtagaaataa 60
ctatagtctc cttcatgaa attcaccacc acgttctctg ag 102

<210> 2212
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2212
gaattcggcc aaagaggcca ttcaaacatc tctttagtat tttccgcct aacacttaga 60
tcctgatcat attccaggaa aacatgaaag ttgcgatcat cctcgag 107

<210> 2213
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2213

gaattcggcc aaagaggcca ttcaatatgc tcttcttggg tccatgtccc gacaaccaca 60
 gaggttttcc cactatcctt gtcctcatgg tattgatgta catgtttgcc atagcagaat 120
 tcataatttcc accaaccgac accccactcg ag 152

<210> 2214
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 2214
 gaattcggcc aaagaggcca tgatgctgga cacactgtca aagtcaatct tctccacaat 60
 gttcttgggt ttaatgctct cttcttgggt gggggtccca cttggcgcac gcgagctcga 120
 g 121

<210> 2215
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 2215
 gaattcggcc aaagaggcca ttcgagggtg tcaggactaa gagaagtcac aaaacagcag 60
 atttcccaag agcagcggaa aatgatccag tcacagtcgt cagctcgcag 110

<210> 2216
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 2216
 gaattcggcc aaagaggcca ttcagcatga cgcagtggaa aaaaacattt cgagtctata 60
 gacctggacc agtgaagac ctgggttggg attctactct gcacttccgc agctcgcag 118

<210> 2217
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 2217
 gaattcggcc aaagaggcca ttcaactcag agcatttcac tcaagaatgc atttgcctcc 60
 actcgttttc ttgcttccaa gtctgctgat taaaattcca tccaacttga aagattttgt 120
 aaactattcc cacaagacag aactcgcag 148

<210> 2218
 <211> 116
 <212> DNA
 <213> Homo sapiens

<400> 2218
 gaattcggcc aaagaggcca ttcaggattg gaatggtttt cttttgtttt ttgtttgttg 60
 ttgtttgtgt ttgtgatgg agtctcgtc tgctacccag gccggagtgc ctgcag 116

<210> 2219
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 2219
 gaattcggcc aaagaggcca ttccgttttg agtctctgga gcctgaactc tcaccatgta 60
 ccagaaaaga atgccctct ttcgaacttt caaacagttg ggattatttt tgtttcttat 120
 catcccaatt atttgetcaa gtttgctcc attgggtccc gcctcgcag 169

<210> 2220
<211> 120
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (112)

<400> 2220
gaattcggcc aaagangcca ttgtaatcat catagcctcc atagcctcca ccataagcac 60
cacgcctcat cctctcaaag ccagctcctc tgccaatgct gttataccct cntcctcgag 120

<210> 2221
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2221
gaattcggcc aaagaggcca ttcaaacagc aaataaagaa aatccatagc tactaagata 60
actgttctct cttcatatga tactaacagg cttatggctc gag 103

<210> 2222
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2222
gaattcggcc aaagaggcca taaattatct tttacttttt ggcaaattgt tacagtttat 60
ggggctctaca atttattttt ttattttctg gcttaagtta tctaggattt gtttctgtgg 120
tactctcgag 130

<210> 2223
<211> 181
<212> DNA
<213> Homo sapiens

<400> 2223
gaattcggcc aaagaggcca ttcttacggt actaaaaatt attgaatata ctcttttcaa 60
attatttaat atgacccaaa attttagaaa tgtgtgttct ctcatactaa tgataatgac 120
ccttaattcta gaaaactgtg ctaaaattat agctattaaa aatcttcctg aagggtcga 180
g 181

<210> 2224
<211> 143
<212> DNA
<213> Homo sapiens

<400> 2224
gaattcggcc aaagaggcca ttccatttag caactgatca ttttgagaac tgataccaag 60
ctgtatgtcc aagatctctt caattgggtc actttgtcca tcagggtcat cagtatcaag 120
tgctgaaagc tctaactctc gag 143

<210> 2225
<211> 152
<212> DNA

<213> Homo sapiens

<400> 2225

gaattcggcc aaagaggcca ttcaaagata aaatgttcaa attcctcatt tcactatatt 60
actcattttc aggctttcct gaaaatgagt cctgggtcaa ttactcgggg ggcggtcgaa 120
ggccgctgtc ccttcccgct cccagtctcg ag 152

<210> 2226

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2226

gaattcggcc aaagaggcca ttcaagaatt taaaaaatga tatttaggta ccaagtccag 60
attgtaactc ttggaatttt tctcctggaa gcatttagtt atatttctgt cccctttcaa 120
aatgaacccc tcgag 135

<210> 2227

<211> 120

<212> DNA

<213> Homo sapiens

<400> 2227

gaattcggcc aaagaggcca ttcaaagac aaactggata cattgagctt accagaaaga 60
aagtgaatca gcttgcatca caattctatg ttaaataatt tatttactat tacactcgag 120

<210> 2228

<211> 148

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (57)

<220>

<221> unsure

<222> (134)

<400> 2228

gaattcggcc aaagaggcca ttccctcgat acattcctgg ctttcttctg ggcaaanggg 60
tgccacattg gaagagggtg aaatataagt tctgaaatct ggtacacagg acttgcggtt 120
gcagtcaccg aacnggggtt cactcgag 148

<210> 2229

<211> 161

<212> DNA

<213> Homo sapiens

<400> 2229

gaattcggcc aaagaggcca ttcaaatac acatttctac accaatcatc ataagaaaaa 60
agtactctgt agtcgatctg tacatccaaa tgcatttggg aatctacacc tacgttacat 120
tatttaaatgt tatatacatc tattaccac ccacactcga g 161

<210> 2230

<211> 203

<212> DNA

<213> Homo sapiens

<400> 2230

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gaattcggcc aaagaggcca ttcccagggtg acctctgttc attttcatag gggcctctga 60
agatgctatt ctcaacttta ttgattatta ttattctcag acaggggtctt gctctgtcac 120
ccaggctgga gtgcagtggg gcaatctcgg ctactgcaa cctcacctcc ccggttcaag 180
gaattctccc actcaccctc gag                                     203

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<210> 2231
 <211> 106
 <212> DNA
 <213> Homo sapiens

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<400> 2231
gaattcggcc aaagaggcca ttcaacagag gaagaaatca aatcatcctt tctagaaaca 60
ttaaaagttg cctgcagcaa gtctgatgaa gtgtcattgg ctgcag                                     106

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<210> 2232
 <211> 143
 <212> DNA
 <213> Homo sapiens

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<400> 2232
gaattcggcc aaagaggcca ttctcgacac cctctgtaca cagcatgcgc tttatttggc 60
ttctcttacg cagcgtagtg actttcagat ttattcaagc tgctgcgtgc gccaacagtc 120
cactccttcc tagtgacttc gag                                     143

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<210> 2233
 <211> 161
 <212> DNA
 <213> Homo sapiens

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<400> 2233
gaattcggcc aaagaggcca ttcaaccttg ttaaaagaaa ctgggaattc tgtagagtct 60
gctgactgct ttctgtatta gctatgttgg ttgttctgtt ggattgtgtg attgtagtgg 120
tgacactgct tgtgttagta cgccgggttg cattactcga g                                     161

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<210> 2234
 <211> 114
 <212> DNA
 <213> Homo sapiens

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<400> 2234
gaattcggcc aaagaggcca ttcagatatt tttatatcat tactagtaaa tggcacaatt 60
atattgtgtt gcagtgtgtt gatgttaaaag tcaaaggctg cagcatgtct cgag                                     114

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<210> 2235
 <211> 150
 <212> DNA
 <213> Homo sapiens

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<400> 2235
gaattcggcc aaagaggcca ttcaaagtat acacaaatat tatagtatta taaaatcagc 60
agataactgc attaacagga ctttacgttt aggaactaca tccttccatt tgaggattaa 120
aatatgtatc ttatatacca ctttctcgag                                     150

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<210> 2236
 <211> 158
 <212> DNA
 <213> Homo sapiens

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<400> 2236
gaattcggcc aaagaggcca ttcacaaata ttacagtttg ataaaaactt cacacacata 60

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ctcccaaagt ctataccaga ttcagtcaac tttactaaat cattcaaata ataaaagtaa 120
 tgaaaacatt attatatttt aaagcaataa gtctcgag 158

<210> 2237
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 2237
 gaattcggcc aaagaggcca ttcaagaaga cttaaaaaaa atacaatatc caattagaaa 60
 agccatattt taaacatttg tacaagaata agctgctgaa acttagtaat tgaaatatga 120
 catctgtaca acaatttaca atagagctag aagggaattt atcattatcc tgcatagaac 180
 tggctctgcat ttggttcctc gag 203

<210> 2238
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 2238
 gaattcggcc aaagaggcca tgaagttatc agatgttgca aacacatgct ttttgccttt 60
 tcacatgggt atgatctctc gtgtgtgtaa tgtgaggtcc caatgctccc acttctacgc 120
 ccaatcacag ctcgag 136

<210> 2239
 <211> 142
 <212> DNA
 <213> Homo sapiens

<400> 2239
 gaattcggcc aaagaggcca ttcaggtggc attgatctgg gagaagagca gcatcccttg 60
 ggcacaccca ctccaggag caagcgaaga aggaaggag gagacagtga ttatgacgat 120
 gatgatgacg atgacactcg ag 142

<210> 2240
 <211> 178
 <212> DNA
 <213> Homo sapiens

<400> 2240
 gaattcggcc aaagaggcca ttcaactgg gaaatctgaa ttacacgata cccagaatt 60
 tccaaatgct gtttttttca tagcagattt tcctttcatg tgagggatat ttctacaaag 120
 tgcttttgaa tccaaaaatt ccaaagcaat cctttcagcc cctggtggca tcctcgag 178

<210> 2241
 <211> 141
 <212> DNA
 <213> Homo sapiens

<400> 2241
 gaattcggcc aaagaggcca tttctttctc taagcagaag ggatagccac cattttctcc 60
 cctgactgct gcgtggtggg cacaggacag gcaggcgggg tctgaggagg ctgggtcatt 120
 tctgcctaag cgcacctcga g 141

<210> 2242
 <211> 130
 <212> DNA
 <213> Homo sapiens

<400> 2242

gaattcggcc aaagaggcca ttcaaagaga cacagagata cgctgagtga tacagagggt 60
cagacacact ttcagaatca caacgacact cagagacaca aaaatgcatt tagggatact 120
gatactcgag 130

<210> 2243
<211> 132
<212> DNA
<213> Homo sapiens

<400> 2243
gaattcggcc aaagaggcca ttcaaagaag agtcttatat gagatcaaat ggctgccttt 60
ccccacaaga ttatatTTTT cctggtatgc tctactttga cacatgtggc tttctcaggt 120
gagtacctcg ag 132

<210> 2244
<211> 197
<212> DNA
<213> Homo sapiens

<400> 2244
gaattcggcc aaagaggcca ttcaaactaa tttccaagat tctaaaagtt cttcataatt 60
tgtcttttctt cccattcctt cacattgacc tctgcaacct tattccttgc cagccattac 120
caatgagaat attctctgat ttaccagaa agatcatgat ctttgaacta gctattcgtg 180
ctacctcatc cctcgag 197

<210> 2245
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2245
gaattcggcc aaagaggcca ttgtgaaaac tcctaaaata tagaatagca ggagcaaaga 60
ggctctcttag agaggaactg agtggtttta tatgaaattg tggccacatg aaactcagga 120
tactcgag 128

<210> 2246
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2246
gaattcggcc aaagaggcca ttcagtgtgt tgacaataat cagtctgttc tagtatctgc 60
acatacctca gcgggaaaaa cagtatgcgc cgagtatgcc attgcttcct cgag 114

<210> 2247
<211> 238
<212> DNA
<213> Homo sapiens

<400> 2247
gaattcggcc aaagaggcca ttcaaagata ccaatcaatt tcttactggt gaaatatata 60
agaacttcca ggagtcacaa gagttccaaa caattaattt ataaaaataa caaacattt 120
gtctatgaaa aaaagatcag gattcactct catcgacgtc ctcactctgga tgggtgctcag 180
catcctcctt ttctgtctgc tgtttcttcc acagtttggc tatttcagga atctcgag 238

<210> 2248
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2248

gaattcggcc aaagaggcca ttcagtgcc cgggatctgt gtcattcttc tgtagctttt 60
cccactggga acttgatatt tccctgagat aaacagtctg catagctttc ttcaaatgag 120
gttcaatatt tctccacagt tactcgag 148

<210> 2249

<211> 152

<212> DNA

<213> Homo sapiens

<400> 2249

gaattcggcc aaagaggcca ttcaagaata cacactctgc aagttctaag cctgtattta 60
gtctcaaac accgctctgc aactacaaa gattttggta taacgtatca catctagaga 120
aaggcacaat gtatttcca ctatttctcg ag 152

<210> 2250

<211> 190

<212> DNA

<213> Homo sapiens

<400> 2250

gaattcggcc aaagaggcca ttcaaggga ggtaagtggg attgtaaacc aaagtaaaa 60
tacaataatg ttatgcttgt tatgtatat gctctatttt tctgtctttt tttttttttt 120
tgagacggag tctactctg ttgccaggc tggagtgcag tggcgagatc tcggctcacc 180
gaacctcgag 190

<210> 2251

<211> 137

<212> DNA

<213> Homo sapiens

<400> 2251

gaattcggcc aaagaggcca ggttcgtgaa gttcgtaaag aagagcaacg ttatagtggg 60
gaattatctg gcattcgtgc aggagttaa aagagcatta agcttaaatg aagtttttgc 120
ttagcataac actcgag 137

<210> 2252

<211> 116

<212> DNA

<213> Homo sapiens

<400> 2252

gaattcggcc aaagaggcca ttcagtgtg atccaggaat aaatttcacc ttttttaaca 60
attccttggc tgcagtctta atatccgtga tgtttataaa cactgcttg ctcgag 116

<210> 2253

<211> 149

<212> DNA

<213> Homo sapiens

<400> 2253

gaattcggcc aaagaggcca tcaaatcaaa agtgaaaagg agtaaaactt ctaaggatgc 60
taataaatct ctgccttctg ctgccttgta tgggattccc gagatcagca gcactggcaa 120
gaggcaggaa gtcgggggtc gctctcgag 149

<210> 2254

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2254
gaattcggcc aaagaggcca ttcaaagaga acttgagatt caaaagaaaa ggctggataa 60
attaaaatct gaggttaatg aaatggaaaa taatcctcga g 101

<210> 2255
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2255
gaattcggcc aaagaggcca ttcaatttca tctctgtctc ccccgattgc catccagaat 60
gctttggcca ccttttctgc atgcactttt cttcactctc gag 103

<210> 2256
<211> 172
<212> DNA
<213> Homo sapiens

<400> 2256
gaattcggcc aaagaggcca ttcaaaaggc ttgtgggttt tttaaaaact gttttaaaat 60
tcattcttca aaaatgttca gacatgacca cgttgggttc atcacagtgc ttatgaagtt 120
tcttcatttt tcatgtgtcc aagcaggcct gaacaccccc actttcctcg ag 172

<210> 2257
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2257
gaattcggcc aaagaggcca ttcaaacaaa taattaagca aatactttaa tacttacaac 60
tgtgacacaa tagccatgaa gaaaaagggtg ctgttgatga gtctcgag 108

<210> 2258
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2258
gaattcggcc aaagaggcca ttcaaaaaat atgtggtcaa gaactaaacc aaacaaacct 60
ggatgatcct aggccaaaac aattcctttc caggcactcg ag 102

<210> 2259
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2259
gaattcggcc aaagaggcca ttctttgcaa gtcacccatg ttgttactta ggcattttat 60
cttggctcaa attgttgaag aatggtggct tgtttcaaga agtgtggcaa gcaccaaccc 120
cataaagctc gag 133

<210> 2260
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2260
gaattcggcc aaagaggcca tttatgttta atgcaactat tgaaatgttt ggcttttagat 60
ctaccattat gttgttttct gtttgttccc tgttttccat tgctgtttct tctttccttt 120
tttccttccc tcttatctct ccttctccct atacacacac acacacacca aggtctgag 179

<210> 2261

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2261

gaattcggcc aaagaggcca ttcataatac taaaaagtta aagattacct aaatctgtaa 60
cagtagaaaa ttatctaaat aaattatgaa atatacatcc atcctcgag 109

<210> 2262

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2262

gaattcggcc aaagaggcca ttcaaagtca tctaaccaaa taccttcccc cacagctaag 60
aaagaatccc agtgtttccc tagtttagag atgaagatac tcgag 105

<210> 2263

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2263

gaattcggcc aaagaggcca caaatagtgt aacaaatcca aattgagtaa ctgtttctaa 60
gtactcatag aaaagcccaa ggggtccaaa actttcaagg tcatgaccc gctcccatcg 120
actatacagc ttctcagagt ttgtccgagc ttttcggcgt ctccaccaat tcaaagccaa 180
gggataaatg gcttctttaa tgtttccaaa aatctgtttc cgggtctcga g 231

<210> 2264

<211> 120

<212> DNA

<213> Homo sapiens

<400> 2264

gaattcggcc aaagaggcca ttcaaagaga attggtagag ggggttgatt ttttggaggt 60
cattaataac aaaataaaga agagatgctc ttgctgccaa tggctctgtaa cattctcgag 120

<210> 2265

<211> 233

<212> DNA

<213> Homo sapiens

<400> 2265

gaattcggcc aaagaggcca tacagctctg ttcccatgaa cttcttccgc tcccatttgc 60
cgtccttcat cgaagccgct gccctgggaa tctgcctggc caggcacatg atcattccac 120
aagtgaagtc tgcggcactg aggctgttcc cattgggggt gttcataacc aagatgccct 180
tccttggtgc ggcctccaga tccacattgt ccacacctgt gccagccctc gag 233

<210> 2266

<211> 151

<212> DNA

<213> Homo sapiens

<400> 2266

gaattcggcc aaagaggcca ttcaaagata ggcttggtgg gacaaaacta atatgcatac 60
tacaacata tatttcttgt cttctttact gtcaatcttt cagaacagta acatgacatt 120
acaaacacct caaattccca cttctctcga g 151

<210> 2267

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2267

gaattcggcc aaagaggcca tttagactat ctctttgcta atttttgctt actgctgtag 60
ggaagaagat ttccaatgaa ctttaaatat ctcattcatg tctaccattg tctcgag 117

<210> 2268

<211> 132

<212> DNA

<213> Homo sapiens

<400> 2268

gaattcggcc aaagaggcca aaggctaaga ctgtctaagt ccagatattc gaaagcaagc 60
taattattat tgaaactcta agatattatt aagaaggaca atcaagaaat gaaagctgta 120
cttgttctcg ag 132

<210> 2269

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2269

gaattcggcc aaagaggcca ttcaaatagt tcgtacaact acagatacca gttctcatag 60
cttggcatat tcaaccatat atgaaaacgc atttctctga g 101

<210> 2270

<211> 106

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (86)

<220>

<221> unsure

<222> (88)

<400> 2270

gaattcggcc aaagaggcca ttcacgattc agaattttct gtttaaaaat ctttcgaagt 60
atgttatatc acttattttc atcagnanaa cgtcatggct ctcgag 106

<210> 2271

<211> 148

<212> DNA

<213> Homo sapiens

<400> 2271

gaattcggcc aaagaggcca ttttctgttt catcatcatc agatccttct tctccctttg 60
gatgtcttct cctctttttc ttctttctct caccacctc ctcattctca ccttcttgtt 120
cactgccact accctatctt ctctcgag 148

<210> 2272

<211> 115

<212> DNA

<213> Homo sapiens

<400> 2272

gaattcggcc aaagaggcca tgacttcatt ttcaaataatt tctggggctg tttgtatctt 60
gttcctttgt gaagtgtgtt gcagaaccga cgttactgt gcaagagatc tcgag 115

<210> 2273
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2273
gaattcggcc aaagaggcca ttcaaattctt atcaaataaa actgttgcca ctcttaaatt 60
acacaaccgc tgtatttcag tgttccactg actcacaatc actcgag 107

<210> 2274
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2274
gaattcggcc aaagaggcca ttcaattttt cattttcctg ctcaatatta gccatttttt 60
cactagtcaa tattcctgat gcttttttca actgttcatt ttctcgag 108

<210> 2275
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2275
gaattcggcc aaagaggcca ttcattacct tcgctcatga tcccagcagc catttttctt 60
aacaccttct gccactttct gtcgggtgcta atggatggaa ctccctgcaca agttttaact 120
gaacaagaaa cccaaggct cgag 144

<210> 2276
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2276
gaattcggcc aaagaggcca ttcaacttcc atagtacatt ttacagttag caattcatac 60
aacagtatac aacagttagt atcttgagaa aaataaaaaa ctgcagtctc gag 113

<210> 2277
<211> 176
<212> DNA
<213> Homo sapiens

<400> 2277
gaattcggcc aaagaggcca ttccatagct tgcctttttg ctctcagtta tttcctttga 60
tgcacaattt ttttacattt gatatagaca catttgctg tttttggttt ttttatgtat 120
gctttggatg tcatacccaa gaaatctttg ccaaattccag tgtccagaat ctcgag 176

<210> 2278
<211> 140
<212> DNA
<213> Homo sapiens

<400> 2278
gaattcggcc aaagaggcca ttcataagaa agtggttatat ctagggtttt aaaactgaag 60
ttgaaattat ctttgtttagc agtagtagta tagaataaaa gatccgtatg ctggttcgta 120
gattgatacg tgcctcagag 140

<210> 2279

<211> 128

<212> DNA

<213> Homo sapiens

<400> 2279

gaattcggcc aaagaggcca ttgatgtgtt tgtggaagct actcatgttg cccttgcat 60
ggggagcctg gttagaactc tgtaacctga tcacagacaa agagatggta aattgtgatg 120
agctcgag 128

<210> 2280

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2280

gaattcggcc aaagaggcca ttcaaactgc tgctgttcaa aacgtgaaat gattctgctg 60
aatccattct tgatgtctct ctttagtggt cttctcatta gtggatcatc cgag 114

<210> 2281

<211> 110

<212> DNA

<213> Homo sapiens

<400> 2281

gaattcggcc aaagaggcca ttctcttccc ctgtgtgcct cagtgtcctt ctcatttcag 60
tagggacttc tgaaatgggg gaggcagtgt ggaatactgt gaatctcgag 110

<210> 2282

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2282

gaattcggcc aaagaggcca ttcaaaggga aacaaatata agtaatcctc ttgtttctaa 60
acaaaaattc ataattatct atacatttta aaatattata ttgtttcaaa tgtgttagt 120
ggggcatatc ctcgag 136

<210> 2283

<211> 104

<212> DNA

<213> Homo sapiens

<400> 2283

gaattcggcc aaagaggcca ttcaaacaag aaattatgcc aatcaactgt caaattttca 60
ctataatttt cctaaaaagg cgtttttccc ccaataatct cgag 104

<210> 2284

<211> 170

<212> DNA

<213> Homo sapiens

<400> 2284

gaattcggcc aaagaggcca ttcaaactct aacacaaaat gatcacaggc tggcagagac 60
acagaagcag gcaacaattt atctgggggc taatcagagt catcataact ctcactacta 120
tcttgctcct tttctccagc acttacttcg tcttcttcac catcctcgag 170

<210> 2285

<211> 116

<212> DNA

<213> Homo sapiens

<400> 2285

gaattcggcc aaagaggcca ttcaaaagct tctcagcacc atcccacttt tctgtttgt 60
ttattactct tcaacagcag ttccacctca tgctttttaa ttttgcacac ctcgag 116

<210> 2286

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2286

gaattcggcc aaagaggcca ttcagtctcc ttatcatgat tttggacccc gatctctttt 60
tctctttgtt ctttgaggct gtgggtatct tgggaggctc ctctcttct tccacaatac 120
tcgag 125

<210> 2287

<211> 194

<212> DNA

<213> Homo sapiens

<400> 2287

gaattcggcc aaagaggcca ttctgtatat cctgaacaaa gccatcttta tcatagccat 60
tagtgacaat gacttccaaa ttcttatggc ctgctgactt ctccatcatt ttcttatcat 120
tatcactttg ttctgtctct ttcactctct cttgggcctc ttcttctca gactcggctc 180
cactgtcact cgag 194

<210> 2288

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2288

gaattcggcc aaagaggcca ttcaaagagc tattcaatgt cagttacaag cctgtcccaa 60
ttatatccct actatcacc atccccgcac ctatcactgg catcttctgt ccatacttta 120
ctcgag 126

<210> 2289

<211> 116

<212> DNA

<213> Homo sapiens

<400> 2289

gaattcggcc aaagaggcca ttctccacac tttaaatttg acttgacatt ttctaggcag 60
atataagtta ttagagaatg agattctcta taaaatgat cccttcattt ctcgag 116

<210> 2290

<211> 312

<212> DNA

<213> Homo sapiens

<400> 2290

gaattcggcc aaagaggcca ttcaaagctt ctcaagtcag ctaagtcaga cagaactgca 60
gagatagaag tagaaggga ctcagattct tctcagcta gggtagaatc caggaacctc 120
gagtaatagc cattctgact ggtgttaggt ggtatctcgt tgtggttttg atttatttgc 180
atttctctaa tgatcagtga tattgaggtt tttttaatag gcttggtggc tgtatgtata 240
tcgtcttttg aaaagtgtct ggtcggggcg gtggctcagg cctgtaatcc cagcactttg 300
gataggctcg ag 312

<210> 2291

<211> 148
<212> DNA
<213> Homo sapiens

<400> 2291
gaattcggcc aaagaggcca ttcaaatgat gttatttctt ggttgcaacc agttgtttca 60
atattcttta ttgatccat acattttatt tcttcttggt ttccattttg ttgtagtagt 120
gtctcttcgg gattcggctg gcctcgag 148

<210> 2292
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2292
gaattcggcc aaagaggcca ttcatgcaga cttttttaac gattttgaag atctttttga 60
tgatgatgac atccagttag atgccctctg gctgcaggcg gggccaagcc cttggcacag 120
agctcgag 128

<210> 2293
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2293
gaattcggcc aaagaggcca ttattcttcc aattacttta ggaaatttat tatcttttga 60
atatcagaac caaatgttac taactatccc aatcctcgag 100

<210> 2294
<211> 183
<212> DNA
<213> Homo sapiens

<400> 2294
gaattcggcc aaagaggcct agggacctag cgcagggtt ttggtaatcc ataaaatgga 60
ttctgagact ggcacggcaa ggctgtcttg tccccaggc acccaaggat cctgccagac 120
agcacacttt ggaggaaggt ctgcagggag cagctgagcc attgttctt gaacgcactc 180
gag 183

<210> 2295
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2295
gaattcggcc aaagaggcct agtgtatatt aggctgtctg aaattgtgca acatgttact 60
gatgctttat ttttttcta tctcctttc tctctgtagt ccatactgga tagttcctgt 120
tgccgggtctc gag 133

<210> 2296
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2296
gaattcggcc aaagaggcct agtggatatct tgcaggaact gtgtgctaaa attgaacaat 60
ttttttgaga ttatgggtgc aatacttggc gtgctactcg ag 102

<210> 2297
<211> 133

<212> DNA

<213> Homo sapiens

<400> 2297

gaattcggcc aaagaggcct agatcagata ggtaaactgc aagatagata ggatgaaact 60
tttggcctac tgtattactt acagagtttt tttgtgtgtg gtttttataa ctgttaaggc 120
aagaagactc gag 133

<210> 2298

<211> 147

<212> DNA

<213> Homo sapiens

<400> 2298

gaattcggcc aaagaggcct agttgtcagt tgtctcttcg ttttggttaag gtttttaata 60
agtacgtttg gcataatgtc ttttaatggg tttgtaatat ttgtaacggt ttttagcagcc 120
tataactttt cagctggtgc cctcgag 147

<210> 2299

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2299

gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagtgt gtggcaggtc 60
tagaattcaa tcggccaaag aggcctatga attctagacc tgcctcgag 109

<210> 2300

<211> 171

<212> DNA

<213> Homo sapiens

<400> 2300

gaattcggcc aaagaggcct agcgacgttg acttcgaaat tgtactccct gctgttccgc 60
aggacctcca ccttcgcctt caccatcatc gtgggcgtca tgttcttcga gcgcgccttc 120
gatcaaggcg cggacgctat ctacgaccac atcaacgagg agaaactcga g 171

<210> 2301

<211> 131

<212> DNA

<213> Homo sapiens

<400> 2301

gaattcggcc aaagaggcct aggaggtttg aaagaaggta gtgggctcag aaacattaaa 60
agttaggcac aaaggacaag gaaaaataaa cgaaaaataa tataatgaga atatatccaa 120
caatcctcga g 131

<210> 2302

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2302

gaattcggcc aaagaggcct aattgaattc tgcttgtcat taagataagg tgaataagtg 60
tcttaaactg cctgtaaaac cggactcccc tttgttacat gcacattttc cattgttacc 120
tcgag 125

<210> 2303

<211> 137

<212> DNA

<213> Homo sapiens

<400> 2303

gaattcggcc aaagaggcct aaaaagaata tgtggaactg ttcactgagt gtaataattt 60
ttttatcctg tattattcaa caggctacag ttcttagcag gagagagagc gaggagtgtg 120
caggaaatgc tctcgag 137

<210> 2304

<211> 136

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (77)

<400> 2304

gaattcggcc aaagaggcct aatgaatgta taaagcgctt ttgttccaaa gatctaaaga 60
cttccacaca cactcantga tgaaattctt attttactgt ttcctttgct gtgttattgt 120
agatgccaga ctcgag 136

<210> 2305

<211> 138

<212> DNA

<213> Homo sapiens

<400> 2305

gaattcggcc aaagaggcct attgatagtg tggaccccca tggcttcac tcctaccgcc 60
tattccggga cgccacaaga tacatggatg gacaccatgt aaaggatatt tcattgtctga 120
atcgggaccc agctcgag 138

<210> 2306

<211> 194

<212> DNA

<213> Homo sapiens

<400> 2306

gaattcggcc aaagaggcct aggtgtgaca gatcaattgt caataaatca aggcagactg 60
cactggatat tgctgtattt tgggggtata agcatatagc taatttacta gctactgcta 120
aagggtgggaa gaagccttgg ttcctaacga atgaagtgga agaattgtgaa aattatttta 180
gcaaaacact cgag 194

<210> 2307

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2307

gaattcggcc aaagaggcct aaaaacttca agacattcaa aaactaggaa ggagtatgtt 60
taatagtatt tgtataaatt tgggtggtat gtttttttat tttgtttctg ttttgtgtag 120
aggtgatctc gag 133

<210> 2308

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2308

gaattcggcc aaagaggcct actcagcttc tcccataggt agtttaacag gcattaaaaat 60
ttgtaattga aatgttgcct tctactgaaa agtgtctcga g 101

<210> 2309

<211> 103

<212> DNA

<213> Homo sapiens

<400> 2309

gaattcggcc aaagaggcct acttttttatt ttgtacttaa aattctggta ctgacacttc 60
acaggctaag tataaaatga agttttgtgt gcaccttctc gag 103

<210> 2310

<211> 161

<212> DNA

<213> Homo sapiens

<400> 2310

gaattcggcc aaagaggcct acagatagga atctaaatat ttatagttag attgtgaaag 60
caaccttaaa gttttgaaga agactgatga gactaggtgc tttgcttcct ttcacaggt 120
atctttctgt ggcatttgag aacagaaacc aagaactcga g 161

<210> 2311

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2311

gaattcggcc aaagaggcct agattggaaa tctgtagcaa gatgctgttt aaaattacca 60
tattgttttt ttatcttata cttagctctc tggcactcga g 101

<210> 2312

<211> 150

<212> DNA

<213> Homo sapiens

<400> 2312

gaattcggcc aaagaggcct agtgctgaat gatatgtttg gggtaaatca gtttttttct 60
tatagaattt cggcgttttt gctgcaactg ccactaattt tgcatttaaa agaacaaaag 120
aggaatgtat ttttcgaagg agctctcgag 150

<210> 2313

<211> 149

<212> DNA

<213> Homo sapiens

<400> 2313

gaattcggcc aaagaggcct aagactttct gtcgtggttc ttagtgtgtt gtcatatcat 60
tgtccaagaa atatctaata ttaattgttg ttattaatac tagctgggac attatgttgt 120
atatttattt aatttgcagtg ggactcgag 149

<210> 2314

<211> 153

<212> DNA

<213> Homo sapiens

<400> 2314

gaattcggcc aaagaggcct acttaagcat tactttttta actttgtgcc atttggctct 60
tactttttat ggatgttttc aaagaaacta ttttatattc aatctagttt atttagtcta 120
ctgtatttct atttcgtgga agcgggactc gag 153

<210> 2315

<211> 125

<212> DNA
<213> Homo sapiens

<400> 2315
gaattcggcc aaagaggcct agtaacaacc agatggcttc actgaaacct gcttttgtaa 60
attacttttt tttactgttg ctggaagtgt cccacctgct gctcataata aatgcagaac 120
tcgag 125

<210> 2316
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2316
gaattcggcc aaagaggcct aagaaaataa acctaaattg tgcgtaatt aagattatta 60
aaattagaat tatacaatga cttatttttg gtggcaaatt ctcgag 106

<210> 2317
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2317
gaattcggcc aaagaggcct aaacagttgt gaagaacaag taatgaagggt gggagggatt 60
gtgttttttg ttttggggac aggggtctcac tgtgtcaccg aggctgatct cgag 114

<210> 2318
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2318
gaattcggcc aaagaggcct aaaacaactt acgttttcac aagccttaaa atttgaccaa 60
ataaactttt tttctgcttc atgcattttt cccagcatct tctcgag 107

<210> 2319
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2319
gaattcggcc aaagaggcct aacctgaagt aacctgatgt taaccaatct gctgtgtcta 60
ctatgctgtt tccttggtcc tgctagtgtt gctttactcg ag 102

<210> 2320
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2320
gaattcggcc aaagaggcct aaggataagt actagaaata ttcatttttt tccttcacaa 60
atctaaatgt tgcttatgaa aactcatctt agaatactcg ag 102

<210> 2321
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2321
gaattcggcc aaagaggcct agcggaacag tcattataca ttatttagac tcattccttc 60

ttccagtgcc cttatgatta ttttgcattg cataactcgag 100

<210> 2322

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2322

gaattcggcc aaagaggcct aggttttctg gacttttctc tcatctctgt atctgatctt 60
attctcctaa tgaaactgtt ggtttcgaga gcccttctcg ag 102

<210> 2323

<211> 158

<212> DNA

<213> Homo sapiens

<400> 2323

gaattcggcc aaagaggcct atctgttttt tgaaatctct ttttttacct tgtttaaaga 60
taatgccttg gctaaaaagc ctgcttctact tttccctgtt tttagtgtt ttctccacct 120
tggcagttaa gagccttggc gtcccaggac aactcgag 158

<210> 2324

<211> 151

<212> DNA

<213> Homo sapiens

<400> 2324

gaattcggcc aaagaggcct agttaatttt tctaatttta ccaaagtttg cagcctatac 60
ctcaataaaa cagggatatt ttaaatcaca tacctgcaga caaactggag caatgttatt 120
tttaaagggc atactggagg ttctccctat a 151

<210> 2325

<211> 127

<212> DNA

<213> Homo sapiens

<400> 2325

gaattcggcc aaagaggcct atattactgg tattagtctt agcctaatac acctaattat 60
ttttctttct gtattctttg ctctctcaaa tagcatctgc agcaattgga atgagaaatc 120
cctcgag 127

<210> 2326

<211> 196

<212> DNA

<213> Homo sapiens

<400> 2326

gaattcggcc aaagaggcct acaacactgt gaggtttctg taatatttag cttttatttg 60
gaagcgatag cgtatggcat tttttatgct gtttggttta tattgtctac tgcaggcttc 120
tttgataaag ctttgcctgg gctcaccctc tcttgacac tgttttaaag tgtcaccgct 180
gtccatgcga ctcgag 196

<210> 2327

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2327

gaattcggcc aaagaggcct cggaaggcag gcacacgaag acacaggtat gtcgggaagt 60
gcacacaaac cgttgtcttt cttttttggt taagaagaa aaactcgag 109

<210> 2328

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2328

gaattcggcc aaagaggcct aatgtttatg tcactaactc atctgaaagt acttgtctta 60
aaagttttta tttttattcc agtgtttgtg gattttttcc aaaaacctaa gaaaacccaa 120
ctcgag 126

<210> 2329

<211> 265

<212> DNA

<213> Homo sapiens

<400> 2329

gaattcggcc aaagaggcct aatagaaggc cgctgactga gccaccagtc agaactgac 60
ctggaacagc cacaaccac caaggattgc cagctgtgga ttcagagata ctggagatgc 120
cacctgaaaa agcagatgga gtagtggagg ggatagatgt aaatggacca aaagcacagc 180
tgatgtttgcg gtatccagat ggaaaaaggg aacagatcac tcttccagag caagctaaac 240
tgctagcttt ggagaagcac tcgag 265

<210> 2330

<211> 164

<212> DNA

<213> Homo sapiens

<400> 2330

gaattcggcc aaagaggcct actaataagc caaggaatcg acatatatta ggtgcgtgta 60
ctgtttctaa aaaccacaaa ctaagaatga taaattatca atatagtta gtatttgcta 120
attttactac actcttttgt tatgtatatg taggaagtct cgag 164

<210> 2331

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2331

gaattcggcc aaagaggcct aaaaaaacia aaaaaaaca gaaaaaaaag aaagaaataa 60
taggaaaaaa taataatttc tctaatatg attatttatt atagaatttt atgtctccat 120
gtactcgag 129

<210> 2332

<211> 104

<212> DNA

<213> Homo sapiens

<400> 2332

gaattcggcc aaagaggcct atataatccc aagatcagtg ttatatttta ctggagaagc 60
tattgaagat gatgatgatg attatgatga agaaagctct cgag 104

<210> 2333

<211> 170

<212> DNA

<213> Homo sapiens

<400> 2333

gaattcggcc aaagaggcct actcagttac cttctaacta ataggctggt tcaggagact 60
ctcccagttt ataaatggtt ctcttgggag cctttggaag ctgtattaaa tctttcagtc 120
ttttatttct aattttttct cttaatctaa atagggccca gtgtctcgag 170

<210> 2334

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2334

gaattcggcc aaagaggcct agctgttatt gtgatgagtc tttggtttaa catcacagta 60
ttctgtgatg tctttttaac tttttgaaa gaggaactcg ag 102

<210> 2335

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2335

gaattcggcc aaagaggcct acttaaacat aagcgaaacc agtagcaagt atgtgggtca 60
gcttaaaaat tttgattgtt aatgccctat tttctaattt ggcacctctt gatgccgaac 120
tcgag 125

<210> 2336

<211> 416

<212> DNA

<213> Homo sapiens

<400> 2336

gaattcggcc aaagaggcct atccagattc aaatgcagaa actgtgatga ctttgatttt 60
tgtgaaacgt gtttcaagat aggcctcttt ggccgaattc ggccaaagag gcctactctt 120
tactcaccct cactcagcct aaccttgctt ccgattttat taaggaaatc caatcaatca 180
gaagagggttt ctacaattta ctatcacatt taccaccag ccatcacctc tgccatatat 240
gctcctctcc tattccaatg gctggaatgt ctcagggaag accaagccct tcacttgtag 300
attagatccc agctctctgt cccatccatt atggaagctg cacatcacc cagtcacaca 360
agagggcact ctgaatgag aatcttgtaa actactccaa atcacgctt ctcgag 416

<210> 2337

<211> 112

<212> DNA

<213> Homo sapiens

<400> 2337

gaattcggcc aaagaggcct aaatgagcat gataatttta caaaaaatct tgaaaatctc 60
atgtctacca ttcaagagag ttactgttcc aactggcgat gcccaactcg ag 112

<210> 2338

<211> 127

<212> DNA

<213> Homo sapiens

<400> 2338

gaattcggcc aaagaggcct aaaagacaat gaagccttta ttgagccact acattaaaag 60
tatatatattg tttactgcct tcaataccag tattacatca atgcatgtat cagaaacttc 120
actcgag 127

<210> 2339

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2339

gaattcggcc aaagaggcct atctaaatct gcattataat agctctaaaa tttgttgatt 60
ggttaagaaat tgggcattgc ttggtctctt aaacacatca gtgcttccac attcacctat 120

gtatttatta ttcaaaagtg tcattttaat atttattgct accttctgtg aatgctcagc 180
tctcgag 187

<210> 2340
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2340
gaattcggcc aaagaggcct aggaagagtt cactcatggt tgcacccgcg gtgatgcgtg 60
cttttcgcaa gaacaagact ctcggctatg gagtcccat gttgttgctg attgttgag 120
gttcttttg tcttcgtgag ttttctcaaa tccgatatga tgctgtgaag agtaaaatgg 180
atactctcga g 191

<210> 2341
<211> 111
<212> DNA
<213> Homo sapiens

<400> 2341
gaattcggcc aaagaggcct aatgaaattt acagtgatag aacaaaagag gattagtaga 60
aaatacatta ttagaatata aaaaatgtta ttactgagga aatatctcga g 111

<210> 2342
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2342
gaattcggcc aaagaggcct agtaaaacat tggctcaaaa taaagtacac actgatttat 60
tttactgttt gaaatgtttc cttttaaact gatgctcctc gag 103

<210> 2343
<211> 162
<212> DNA
<213> Homo sapiens

<400> 2343
gaattcggcc aaagaggcct ataaatcatg aacataaaaa taattttcaa agtatgctta 60
attgttcctt tttttaattc agcagaattt ttctcctctg ctaatgacaa ggcagtctat 120
attagagact gtcaaaatta tttcttaaga agcaccctcg ag 162

<210> 2344
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2344
gaattcggcc aaagaggcct agaggaaccc aaagatgaag atttcagccc tgacgggggt 60
tatattccac gaatcctttt tctggatccc agtggcaagg tgcacctga aatcatcaat 120
gagaatggaa accccagcta caagtatttt tatgtcagtg cccctcgag 169

<210> 2345
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2345
gaattcggcc aagaggccta gaaaagaatc aaagattttt tgtgctcttc actatgtata 60
tagctctgtc ttcagtccat gctctgatcc tttgtggatt tcagttcatc tctgtgtcc 120

gagcactcga g

131

<210> 2346

<211> 275

<212> DNA

<213> Homo sapiens

<400> 2346

gaattcggcc aaagaggcct aaaagaggcc tataggcctc tttggccgaa ttcggccaaa 60
gaggcctatt tgtttttgtg aatgaagaat gaaaatttta tccccattaa gtgcgagctt 120
caattgaggc actcagttta tgaggcttta ctgatgttc ctctcttagg tgctgtagtt 180
aaaatcttgc tgggtctaaaa tgggtgaaaac tattgaggta ttcaaatgat aagtacttta 240
taaaactgaaa ttgcattgaa aacggagtac tcgag 275

<210> 2347

<211> 119

<212> DNA

<213> Homo sapiens

<400> 2347

gaattcggcc aaagaggcct attttttattc ttttttcttt ttttttgttt aagctatata 60
aaaaggtgag gaagcagttt tgttacctaa tgaaaattat tacactcata atactcgag 119

<210> 2348

<211> 181

<212> DNA

<213> Homo sapiens

<400> 2348

gaattcggcc aaagaggcct aaatggacac aaatatttct tggattatgt gtctgcgcac 60
attttatattt tgctgcacaa cactcgagat aggtggtggg ggaaacaaaa cacacagtct 120
ctggcaagcc ccaccgggaa aggagggtctc agaaggcgta gcgggtccgg atatcctcga 180
g 181

<210> 2349

<211> 106

<212> DNA

<213> Homo sapiens

<400> 2349

gaattcggcc aaagaggcct acaggcatat tttttattac tgcccagtaa acatatatac 60
taaagggttta atgaagctgt gcccttacta tatgcactca ctcgag 106

<210> 2350

<211> 233

<212> DNA

<213> Homo sapiens

<400> 2350

gaattcggcc aaagaggcct actaaaaaaa aactttcctt cacacaaact tgactttctct 60
tagaaggctt atttctttct tgagcatata ttttaggact atttacattt attatcttct 120
cttccatgtc ctcatgttca agtacttcac tttctggagt taattcagcc cagttttcac 180
ctatagcatg tttattaacc attttcatac acttaaaagc ccagcagctc gag 233

<210> 2351

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2351

gaattcggcc aaagaggcct attcaaagct aaaatataaa actatttggg aagratgaaa 60
cgatgtctcg tgatctggtg tacccttacc cctgtgacgt ttggccatct cgag 114

<210> 2352
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2352
gaattcggcc aaagaggcct attgagccac aaagtgttga ttcttgcgat gtatgtgcct 60
tattttatgt taatcttgtc aatgagaggg accagtgtgt gttgcccaat cagcactcca 120
aggctgtgtg tgcaccagcc agagagcgca cgggtggcag tactcgag 168

<210> 2353
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2353
gaattcggcc aaagaggcct actaaagtat taaaagtaca gaggaaaaac taagcaagca 60
tttatagcaa taccatgaaa tctccagtaa tcgttttgac tgttgccctt tgctctttag 120
cgcaaccact cgag 134

<210> 2354
<211> 163
<212> DNA
<213> Homo sapiens

<400> 2354
gaattcggcc aaagaggcct agcaaattac aggttaactta aaatctacca tcttaaccca 60
tatttaactg tactgttcag tagtgtaag tcattcgcat tgttgccaat taatatccag 120
aagtttttcc aacttaatga aactaaaaca ttataccctc gag 163

<210> 2355
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2355
gaattcggcc aaagaggcct agataaattg gcctacataa aaataagaaa tcttacattc 60
agacttgagg ctttcactta tcataagatg aaaactaatt ttcattgttt cctcgag 117

<210> 2356
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2356
gaattcggcc aaagaggcct atgatgccgt cccgtaccaa cctggctact ggaatcccca 60
gtagtaaaagt gaaatattca aggtctctcca gcacagacga tggctacatt gacettcagt 120
ttaagaaaac cctccaaag atcccttata aggccatcgc gcttgccact gtgctgtttt 180
tgattggcgc ctttctcatt attataggcc cccaccact cgag 224

<210> 2357
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2357
gaattcggcc aaagaggcct acttgaaatg aggattttat ctctgagtat tttttgtagt 60

attcccccttg tccagttttt gcagaagaat gggtcaagcc tcgag 105

<210> 2358

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2358

gaattcggcc aaagaggcct aattcgtata atgaagctga tttatctata cttccaacat 60
tttcagtatt tggctgttat agatatgctt gtgtacaaat gttttggaaa actgatgaca 120
gatctcgag 129

<210> 2359

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2359

gaattcggcc aaagaggcct aggtgaactg gttaaataaa tcatactaga ttcagaaaat 60
acatactaca aaaacagaat gaaatggatg acctgcctcg ag 102

<210> 2360

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2360

gaattcggcc aaagaggcct aattttgaga tactaaggat tatcttttga catgtactgc 60
agcttcttctg ctctgttttg gattactgga ataccatgg gccctctcaa gagtgtcgga 120
caactcgag 129

<210> 2361

<211> 145

<212> DNA

<213> Homo sapiens

<400> 2361

gaattcggcc aaagaggcct agttgtttac tttctaacag tcgataaaat tttagccttt 60
taaattatag tattaccatt atttgtattg ttattgcaca ttctgtgcca tgaagctttt 120
taacatttgc aacagaacct tcgag 145

<210> 2362

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2362

gaattcggcc aaagaggcct actgttcaac ttgaaaatga gctggagaat tttactaagc 60
agtttctacc ttcaagcaat gaagaatcct aacaatagag attgcttttg tgaccatgat 120
aggaggtcac tcgag 135

<210> 2363

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2363

gaattcggcc aaagaggcct agaggggggg aataaaagt ttaaaaatgt tatggtacct 60
ctgcatgttg ctggaggttt gtggaacggg ggtctacggg gtgaaatata cacagagctc 120
tttagcctgc ctcgag 136

<210> 2364

<211> 116

<212> DNA

<213> Homo sapiens

<400> 2364

gaattcggcc aaagaggcct agaaagaata cttaaaaagt taaatattcc ttaatttcaa 60
gtttatgaac acaaatacat taaactagaa tgcatttttag aaataaacta ctcgag 116

<210> 2365

<211> 155

<212> DNA

<213> Homo sapiens

<400> 2365

gaattcggcc aaagaggcct agtcttcttag aagaagaata gcacagagaa atatacgcta 60
tgaagaaact attatttcag atgtgcatac acctgagcga actatggact agacaggctc 120
tcttggtcac attaccttat caagagtctc tcgag 155

<210> 2366

<211> 100

<212> DNA

<213> Homo sapiens

<400> 2366

gaattcggcc aaagaggcct aatttagata gttgttttagt tctctttttc tttgtagaac 60
atagatataa ggcatggttt cattgaagtc agtactcgag 100

<210> 2367

<211> 108

<212> DNA

<213> Homo sapiens

<400> 2367

gaattcggcc aaagaggcct agctatgata tcaattgact tcttgggggtt attcttcttt 60
atggcaggaa gatgtatttg tacaccagac tgccataaag gcctcgag 108

<210> 2368

<211> 131

<212> DNA

<213> Homo sapiens

<400> 2368

gaattcggcc aaagaggcct aatttccttt taaaataact atttatttta aaataactat 60
tggcaataag gaaactgttc aaagtagagg cagatcttga tagaaagatg ttaatcacag 120
gctttctcga g 131

<210> 2369

<211> 169

<212> DNA

<213> Homo sapiens

<400> 2369

gaattcggcc aaagaggcct agattgattt cttcttcacg gtgttttttc aaagctgccca 60
gttggtctct actctgtgct cggaatatc gttcctcttc agcctgctct ctctttccga 120
aggccccacc ggcttccccg atggagcccc cgccccggtc atcctcgag 169

<210> 2370

<211> 118

<212> DNA

<213> Homo sapiens

<400> 2370

gaattcggcc aaagaggcct actttgagga aagcagtggg attttgcttt ttgttttga 60
agccatgttg tgtggtctgt ggacctgctt gcttttttg aatgtgagtc agctcgag 118

<210> 2371

<211> 107

<212> DNA

<213> Homo sapiens

<400> 2371

gaattcggcc aaagaggcct agctctccag tagaatttta gttgaattaa atcataagag 60
aaacaatgat tattgcacat attatacttg tcacactaca tctcgag 107

<210> 2372

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2372

gaattcggcc aaagaggcct acttaagaag gaattaaaaa aaaaaagctt tgccaatagc 60
taaaaagtac aagctattaa aaatcagatt gaaaagtttt gagaaaatgt tatttttact 120
gaaagcaacc ctcgag 136

<210> 2373

<211> 104

<212> DNA

<213> Homo sapiens

<400> 2373

gaattcggcc aaaagaggcc tacagttaca ttcgaattta gacgggtata ggattttggt 60
ttttcaagat gaaaaaacct atagtgggtga gggttgcact cgag 104

<210> 2374

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2374

gaattcggcc aaagaggcct atacttcttg gactggaata taaaaaagaa tcaaaggttc 60
tgattttgag ttgcaataaa gggaaagacc atgctcatag cagtgcgaat actcgag 117

<210> 2375

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2375

gaattcggcc aaagaggcct acaataaaga gatgcgtgtg actagttttg gacttttaac 60
cttaatgggg gttgcatgtc tcctattggt aatcattgtc agctgcagtg acatgatcca 120
cagtcctctc gag 133

<210> 2376

<211> 529

<212> DNA

<213> Homo sapiens

<400> 2376

gaattcggcc aaagaggcct aatggcgggt gcaaattcaa gtcctgttaa ccccggtgtg 60

```

ttctttgatg tcagtattgg cggtcaggaa gttggccgca tgaagatcga gctctttgca 120
gacgtttgtgc ctaagacggc cgagaacttt aggcagttct gcaccggaga attcaggaaa 180
gatgggggttc caataggata caaaggaagc accttcacaa gggtcataaa ggatttcatg 240
attcaggggtg gagattttgt taatggagat ggtactggag tcgccagtat ttaccggggg 300
ccatttgcag atgaaaattt taaacttaga cactcagctc caggcctgct ttccatggcg 360
aacagtggtc caagtacaaa tggctgtcag ttctttatca cctgctctaa gtgcgattgg 420
ctggatggga agcatgtggt gtttggaaaa atcatcgatg gacttctagt gatgagaaag 480
attgagaatg ttccacagc cccaacaat aagcccaagc aatctcgag 529

```

<210> 2377
 <211> 106
 <212> DNA
 <213> Homo sapiens

```

<400> 2377
gaattcggcc aaagaggcct acatcatttg aacttatattt attgatactc attagtgaat 60
aaaattgtgt tgatttttga tgcattacaa cacactttta ctcgag 106

```

<210> 2378
 <211> 112
 <212> DNA
 <213> Homo sapiens

```

<400> 2378
gaattcggcc aaagaggcct acgatttcta ttcttgaaag aatcaactac agtgaatcct 60
ttgcatttga agccttaaca tgcattgctt taattttgcc caggtgctcg ag 112

```

<210> 2379
 <211> 103
 <212> DNA
 <213> Homo sapiens

```

<400> 2379
gaattcggcc aaagaggcct atataattaa aaatttacta atgcaaacia gatttacagt 60
ctttaataca atcttaattt tggaaattcat gaaggaactc gag 103

```

<210> 2380
 <211> 102
 <212> DNA
 <213> Homo sapiens

```

<400> 2380
gaattcggcc aaagaggcct aaacaaaaat atgttgtggc tggtgccagt atttttgtta 60
atgaaatggt cagtgtctca ctacagtctg ategaactcg ag 102

```

<210> 2381
 <211> 105
 <212> DNA
 <213> Homo sapiens

```

<400> 2381
gaattcggcc aaagaggcct actgctgttt aaagttaaca tttgaatgaa acactttttt 60
actaaagtat tagaaatagg agtgcaggta aaggcaattc tcgag 105

```

<210> 2382
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 2382

gaattcggcc aaagaggcct agttaatgag gccaatTTTT ccagcattta taattatttt 60
tttcaattgt taggaagcct ttgttatgta ttttctgtta atagtaccg ttctcgag 118

<210> 2383
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2383
gaattcggcc aaagaggcct aagatgatgg tgaatgatttt gttcgggggc tcatttgtat 60
ttcttaccga ctgcaccatc caaagcagca gcataaactc agagatgac ctcgag 116

<210> 2384
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2384
gaattcggcc aaagaggcct agactacttg ttcctgtgcc ctcttgtttt aggcctcggt 60
tacttttaaa aaatgaaatt gttcattgct gggatactcg ag 102

<210> 2385
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2385
gaattcggcc aaagaggcct attgtgattt aactagttag aattgtattc aagtgaactc 60
tgtttttctg aataataaaa tataaacaat gagattggca ctactcgag 109

<210> 2386
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2386
gaattcggcc aaagaggcct agatgtctcc cttgactctt ctgtgtatat gtgtgaatat 60
gtgtgtatat gtgtgtgtgt gtgtgtgtat gaagctggct ttatcagaat tactgggtga 120
tggatatgaa gaaagaaagg ctctcgag 148

<210> 2387
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2387
gaattcggcc aaagaggcct atgaaaatga ttctgtctcc ttgaaagca ttcattttgc 60
tagaactgtt agacacattg cagtatgctg tattgaaagt agaaatactc gag 113

<210> 2388
<211> 189
<212> DNA
<213> Homo sapiens

<400> 2388
gaattcggcc aaagaggcct aatggagacc aagctgaagc cactgagaaa atgggagaag 60
ttcgagatga cgtccagcga ggcaggaag atcatgtgct cagtgcatt ccacgtcatt 120
gccatcacat gtgtggtctg gtccttgtat gtgctcattg accgtactgc tgaggagaag 180
gggctcgag 189

<210> 2389

<211> 158

<212> DNA

<213> Homo sapiens

<400> 2389

gaattcggcc aaagaggcct aatttcctttt tattgctgcg aaacagcaag ttaagacaaa 60
ttacagttta atattagtta aaggtcacat gatgtgccac ataaacattt tgggcactat 120
gtaactttta aacttggtct attacatgcg ggctcgag 158

<210> 2390

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2390

gaattcggcc aaagaggcct aaattaattt atgaatctcc tagaatgctg tctggcaatg 60
tgtttggttt ttctctgttt ggcaaagggt tgtttttggt ttttagattc cagtgaacca 120
atactcgag 129

<210> 2391

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2391

gaattcggcc aaagaggcct agaaacattt ttgcctggat gagttccttg ttggtaactc 60
tcactgtgtc tctagtgaac ctagagatct ctagegttca cctgacttgg ctgaattggt 120
gggtgccaggc agagtccttg gcagtagagc cacctcagat gagcctggta gctgcaccta 180
cctccccttc aactaacaag ctcgag 206

<210> 2392

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2392

gaattcggcc aaagaggcct aaatgtttta tattttataa atcatctttt gactctgtat 60
ttaaattcta tgatactgaa aataaaggca ttcactctcg ag 102

<210> 2393

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2393

gaattcggcc aaagaggcct acgagatgaa gtctttgaat acattatatt ccgtgggagt 60
gacattaaag accttactgt ttgtgagcca ccaaaaccac agtggtcttt gcctcaagac 120
ccagcaactc gag 133

<210> 2394

<211> 122

<212> DNA

<213> Homo sapiens

<400> 2394

gaattcggcc aaagaggcct aggagtgggg gtgaggtaaa atgggaaatt ggatatgaaa 60
gaaatcacca cctacatgga aatgtttcaa cgtgcgcaag cgttgcgaca gcgggactcg 120
ag 122

<210> 2395

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2395

gaattcggcc aaagaggcct atggaagtcc agaaaggaaa ataatttaaa ttaatgctgg 60
tgatcttaac aatattttgt aaaatgatgc ttcccccttc gccctcgag 109

<210> 2396

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2396

gaattcggcc aaagaggcct agaaaaatgaa atgaaattga agaataattt gcattatcta 60
gtcttatcac tgccattcta tgacacagga aataccattt gggaaactga gtttctatct 120
gaaaaaggac tcgag 135

<210> 2397

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2397

gaattcggcc aaagaggcct agtctgtttg aagataagag gaaaagtaga acttaaaact 60
ccaaactaga gtacgtaaca ttgaaaaatg aggctgctcg ag 102

<210> 2398

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2398

gaattcggcc aaagaggcct attaaaatat agtaacatcc atttttttcc cttgaaagtg 60
attctcttat aaaaaatgaa agtggagttt aagggtatct tcgag 105

<210> 2399

<211> 163

<212> DNA

<213> Homo sapiens

<400> 2399

gaattcggcc aaagaggcct aaaaaactat gcatgttcta ttgttttcct ttttgattcc 60
ctttctttta ttatccccag taggagtgac ttgtaattct catatgttag aaaggcaggt 120
ctcctggttg aagaaaagat ccacccaagc aagtcagctc gag 163

<210> 2400

<211> 99

<212> DNA

<213> Homo sapiens

<400> 2400

gaattcggcc aaagaggcct aagcatcagt ttgttgtttt taaaaggata ttaagttag 60
cattttctag ttcatatgaa aataaccata gtactcgag 99

<210> 2401

<211> 152

<212> DNA

<213> Homo sapiens

<400> 2401
gaattcggcc aaagaggcct atattgaaca tgttcttcaa gtatacatgg aataactttt 60
tgcatacaca agtggaaatt tgtattgcac tgattcttgc aagtcctttt gaaaacacag 120
aaaatgccac aattaccgat ccaagactcg ag 152

<210> 2402
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2402
gaattcggcc aaagaggcct actctaactt ccgtaaggac acggatgctt aattacaaaa 60
ggttttggcc ctgtagtgc cgggcagcaa tgttatctgt ccttcattct tgcattgttt 120
tggaaattgc ttttgctttt acttttggtc gtcaaggcaa tctcgag 167

<210> 2403
<211> 162
<212> DNA
<213> Homo sapiens

<400> 2403
gaattcggcc aaagaggcct agaaaaatat ttagttgtct cattacctct tctaaacaca 60
aaccagctga tgtattttta tctgtttctg ttctatcttg taattaattt ggtgggttct 120
acttgtttta acataaataa agagtatgca ccacgtctcg ag 162

<210> 2404
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2404
gaattcggcc aaagaggcct agcaaaatat cttccaaaca gcagaapata acatacttct 60
gggaatgaaa ctacagtgtg ttcataatgac ccatatactc gag 103

<210> 2405
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2405
gaattcggcc aaagaggcct aagagaatgg ccatgattcc agtagttaat gatcttctag 60
gttttttgtt tgtttgtttt tgtttttttt ttgagacgga gtctcagggtg acccaccctc 120
tcgag 125

<210> 2406
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2406
gaattcggcc aaagaggcct actcatactt gaaagtttga ctgggtcttt tccttccaac 60
agttataaat ctgtgaaatg aaagtccttg tttccttaaa gggatttctc gag 113

<210> 2407
<211> 207
<212> DNA
<213> Homo sapiens

<400> 2407
gaattcggcc aaagaggcct agcaaaagtc ctgtgtgttt tttgtaattt tgtctgtggt 60

ctgatctctc ttcaccagac aaaagaaaag tacacaattt ctaaaatggt ccatttttta 120
ttgatgagta ttataactgc cttctgcctt ccttcttttc ctccctattt aaaaactttt 180
ccgtttgtaa aaaccacaac actcgag 207

<210> 2408
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2408
gaattcggcc aaagaggcct acaaagcact tgaaagaaga aactattcaa ataattacca 60
aggcatcaca tgagcatgaa gataaaagtc ctgaaactac tcgag 105

<210> 2409
<211> 194
<212> DNA
<213> Homo sapiens

<400> 2409
gaattcggcc aaaaggccta taccaaatag cgaattagcc atgggaaaaa gtagcaaata 60
aataattatt ttactttttc agatgctaatt ttttcttttc gtttatttta ggattggtgg 120
gagctgtcca atgtccttag gctgttttcc aatgagata ccaaaagcta gttctccatc 180
gggtgccgct cgag 194

<210> 2410
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2410
gaattcggcc aaagaggcct agagtatttt ctatatattt aagctgttag atgcatagtc 60
atgattttttg gtggaatggt ttatcaattt ttgaaaattg cctttgcgct cgag 114

<210> 2411
<211> 268
<212> DNA
<213> Homo sapiens

<400> 2411
gaattcggcc aaagaggcct aagaagtgtt tatagaaaag atggctaata ttaacctaaa 60
agaaataacc ttaatagtag gtgtggttac tgcctgctat tggaaacagcc tcttttgtgg 120
ttttgttttt gatgatgtt cagcaatact ggataacaaa gacttgcac cactacacc 180
tttaaaaact ttatttcaaa atgactttct gggaaccctt atgtctgagg agagaagcca 240
caagtcttac cgtccccacc acctcgag 268

<210> 2412
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2412
gaattcggcc aaagaggcct aggaaaatgt tggggcgctt gagccgcctt tgcagtcgga 60
ggggcagcct aggaggagcc cagggaggcg gtggcttctc tccaggtaca tagaaggccg 120
ctcgag 126

<210> 2413
<211> 260
<212> DNA
<213> Homo sapiens

<400> 2413

```

gaattcggcc aaagaggcct acgaggatct tggtttgaca aactagcaat ttccaaacgt 60
tcctgcttag ccatttcttt cctttttttc tcttctttta tcttctttt ccttctctga 120
atctcatgca ggatttcacg ttgctcctgc tcttctttcc gcttgacctc caacagcgcc 180
tcgagaagtg gggaaactca acggtgtacg agtggaggac agggacagag ccctctgtgg 240
tggaacgacc ccacctcgag                                     260

```

<210> 2414

<211> 663

<212> DNA

<213> Homo sapiens

<400> 2414

```

gaattcggcc aaagaggcct agttaatta atccagattg ctgagagggc acggcaaggt 60
cgcctaaggg ctttattcat gaagcaaato tatctgcaag aatatagagc aaagcaatcc 120
aagatgcttg gcaagaaagt gacagatacc tgggctgctg cactccgcat tcagaagggt 180
tggcgacgtt tccatcaacg taaggaaact gaaaaactga gagaagagga gatgatcttc 240
ctgggtatga atccacctcc tctctttaat gaagtcagtg ctacagtaat ccaggctgaa 300
aaggtggacc gcctgcgga tgaggtgcag ataaagcatg aagaggacta cagggaagcc 360
ctgggtacca tcaagaatga cctaaagtgt atagaaggcg tggatatcaa ggagaacctt 420
caagaccaga tccggcattg gttcatcgaa tgcagaaatt taaccgggac atttcttgac 480
tacctgacg ttgaagaagg agggctcagct attatttttt ctgacaagac catacaacag 540
gttattgagg atatcatagc aaaccaagag gaagaagaaa aaaaacaaaa agaagaagaa 600
gaaaaaggaa aaacaaccca agaaagccaa aaaaacaaaag aaaggaacaa aggagtactc 660
gag                                     663

```

<210> 2415

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2415

```

gaattcggcc aaagaggcct aatcgcttgc acctgggaga tggagattgc gattgcagtg 60
agccgagatt atgccactgc actccagcct tggcgacaga gtgagactct gtctcaaaga 120
aaaaaaaaaa aagagtccta tcttgcgaaa cagagcaagg tcatggctcc agtggcagaa 180
gaaaggacgg tcagtggcag gaaataggtg tgaacggaac agtcaccagg gcaccagac 240
accccagggg aatggcagg tgcagcttta tttcccgcat tatggagaga gggaaaaaaa 300
gtgtcagttc cttattaggg agagtaatta catcctttat aactgtgtac ctaattagtt 360
tgtttctaac catcctcatc atgaacaaac acattaaata attggagaga agaggagata 420
agaaagagaa ttaacatttg agaagagact accatgtgtc agacaagcac tgtgctcggc 480
atccttctgt atgttagctc tctaaccctc actaaaacaa acacacaaac caaagatgat 540
tcagtagttg atattttatc agctacatct cccagtgcac tcgag                                     585

```

<210> 2416

<211> 799

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (770)

<400> 2416

```

gaattcggcc aaagaggcct aaaatgattt caaataactt ttaatcaatt aaaccaataa 60
ttttaatttt aaattctgct cctctgaacc atagaggttt gtcagaggta cctcttggcc 120
tgccaggagg caaagtgaag gggagcagag aaggatggga ttgagggtag gtctctggat 180
cccctacttt tctgaaacag cagctttgat tccatgtttt tatatatcca tcttctgtat 240
gtgatttcac ttgaagaaag ggtctcaaag agtttgaaaa ccattgattg attatgccac 300
cctttattgt catcatcatc atcagaccat cacatctaata acgaatatat gtaaaacttt 360
ctatactaag tgcttaactg tgaaacctat gtgctttttc ttgaatactg catttaaaat 420

```

```

aatcagtaaa cacttaaaag tgtatctgta cctttctgcc aatatttctg tagttttgta 480
aattgtggtt tgtgttgcgt gcttatttat tgtcttgtgc ttcaagtctt ttcaggagga 540
catgggctaa atacaatttt taaagctatc tcaaaatggt ttggaaaatt tgagggtaag 600
ataggttttg aaaaggtctg aaaaatataa tagagtccta aaaatggagt aattgcgtgt 660
tgtaacatga aagaaggcaa tgtctggaàa aattcaaaaa tagcaattta gcggaaatag 720
gaagagagga aggtaagagt gttagggata aatgctcaaa agatttctcn gtttttttaa 780
aatatgcaac tttctcgag 799

```

<210> 2417

<211> 237

<212> DNA

<213> Homo sapiens

<400> 2417

```

gaattcgcgg ccgcgtcgac gtgagtcctt tgtagaaacc tggccttttg tgttgatat 60
atttaactag agacacttag gaagcatcca ggcttagata tcagggtgtc agttgtgcgt 120
gtaacagggg atcttgcagc agaaatcaga cttcaggcta tacatttga ggtcttcac 180
acgtaggtag tatttaagtg taggagtgtg agcaagatga ggagggggag tctcgag 237

```

<210> 2418

<211> 480

<212> DNA

<213> Homo sapiens

<400> 2418

```

gaattcggcc aaagaggcct agattatctc caggtggatc actggcagac gcatgggcac 60
atcaagaagg cactcatccg aaagacagaa atgtagaaaa actacaagtc ctgttaaatt 120
gcatgacaga gatttactat cagttcaaaa aagacaaagc agaacgtaga ttagcttata 180
atgaagaaca aatccacaaa ttgtataagc aaaaactgta ttaccatgcc acaaaagcta 240
tgacgcactt tacagatgaa tgtgttaaaa agtatgagggc atttttgaat aagtcagaag 300
aatggataag aaagatgctt catcttagga aacagttatt atcgctgact aatcagtgtt 360
ttgatattga agaagaagta tcaaaatata aagaatatac taatgagtta caagaaactc 420
tgcctcagaa aatgtttaca gcttcacgtg gaatcaaaaca taccatgacc ccaactcgag 480

```

<210> 2419

<211> 188

<212> DNA

<213> Homo sapiens

<400> 2419

```

gaattcgcgg ccgcgtcgac tagacctgct ctagtctgca tcattccttc ctctaccctc 60
actctggata aattatttta ttagtttctt atatgtcttt agaaagtgtt tatattctta 120
accttttttg ttttttattt ctgttttttt tagagacacg gtctcactct gttgtccagg 180
ctctcgag 188

```

<210> 2420

<211> 205

<212> DNA

<213> Homo sapiens

<400> 2420

```

gaattcgcgg ccgcgtcgac tgttgagttc cttatatagt ctagggtatta accccttaga 60
tgcatagttt gcaaattatt tcttccattc tgtaacttgc ctcttcattt tgttgactgt 120
ctcctttgct gtgaagaagc tttttaattt gatgcaatcc tgtttgtcta tttttgcttt 180
ggttgctgtt gccagtcgc tcgag 205

```

<210> 2421

<211> 266

<212> DNA

<213> Homo sapiens

<400> 2421

gaattcgcgg cgcgctcgac cccaggtaga gcaagaagat ggtgtttctg cccctcaaat 60
 ggtcccttgc aatcatgtca tttctacttt cctcactggt ggctctctta actgtgtcca 120
 ctcttcatg gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc 180
 cttggaataa aatacgactt cctgagtacg tcatcccagt tcattatgat ctcttgatcc 240
 atgcaaactt taccacgcag ctcgag 266

<210> 2422

<211> 199

<212> DNA

<213> Homo sapiens

<400> 2422

gaattcgcgg cgcgctcgac taaaccttca tctgtctttc caaccatct accattcact 60
 catcgactga ttcattcatt cagtatctag tctgtatct atctgtccat ccaacttcca 120
 atccactcac catttatcag tcaagatgct cccccaccc aataactacc cattcacagc 180
 ttggaaccga aagctcgag 199

<210> 2423

<211> 247

<212> DNA

<213> Homo sapiens

<400> 2423

gaattcgcgg cgcgctcgac acagtacaca gacgaccaca ccctcagcat cttgtccaga 60
 aagcaattca gttaatcagg tagaagatat ggaaatagaa acctcagaag ttaagaaagt 120
 tacttcatca cctattactt ctgaagagga atctaattctc agtaatgact ttattgatga 180
 aaatggtctg cccatcaaca aaaatgaaaa tgtcaatgga gaatctaaaa gaaaaaccgt 240
 actcgag 247

<210> 2424

<211> 353

<212> DNA

<213> Homo sapiens

<400> 2424

gaattcgcgg cgcgctcgac agcatggggg gctggagtgc cggttttctt tgttttttct 60
 cttttatctg cttttctcaa agatgggata ctgacagaa ttgctctgta tatgcttggg 120
 actggatgga aagactttgg agcagctgtg ggggggtggg ggacaccgac aaccacacag 180
 acgtgctggt tccagtcttg tttttacttt caaaaaccaa caagcccgac agtggagcct 240
 gtccctctcc aggagggtgc tcatggcccc actcacctca tcacccacg gaaacctttg 300
 tgtcttgccc tgggaagacac ccgaattctt tgtacattga catgcccctc gag 353

<210> 2425

<211> 249

<212> DNA

<213> Homo sapiens

<400> 2425

gaattcgcgg cgcgctcgac ctctgttgaa aggcaacaga ttcagtaata cagtgtctatt 60
 ttcaagtgtg gcatcattct ttctagtctc tgcctacttt ttctcaatc ccttcaggtc 120
 ttctctgtgc ctactggttt atcagtcac ccaattattg ggcaaagtgt atacctagaa 180
 tttttgtttc acccctctgg ttctctgact gccatgtttt tccatttaa atttctagct 240
 gtccctcgag 249

<210> 2426

<211> 195

<212> DNA

<213> Homo sapiens

<400> 2426

gaattcgcgg ccgcgtcgac gttttttttt gttctaagaa agttttatcct gtattttctat 60
 ttagaagttt tagagtggtta gcttttagat taaaaaatgg tttacttttt tatttttgaga 120
 tggagtttca ctcttggtgc ccaggctgga gtgcaatggt gcagtcctcg ctcaccacaa 180
 ccttcacctc tcgag 195

<210> 2427

<211> 175

<212> DNA

<213> Homo sapiens

<400> 2427

gaattcgcgg ccgcgtcgac cctaaaccgt cgatcgtagt tcaaattgga ttgtgggtta 60
 ttggaggcag cttggctata gggttatttt gcagtgagc ctgctgattc atcaggtcac 120
 tctgggcccc agccactgga tccagatgaa atgtttcttc caggcagcgc tcgag 175

<210> 2428

<211> 168

<212> DNA

<213> Homo sapiens

<400> 2428

gaattcgcgg ccgcgtcgac taaatattag gagttaaaaa aataaaaaaca atttgccttc 60
 aacattgata cgtgttatat tctcatcatg ctagtgtatg tttttaacta tggtagaata 120
 catacgattt ttgtgttgac ttatataaca ttttaaccag gtctcgag 168

<210> 2429

<211> 224

<212> DNA

<213> Homo sapiens

<400> 2429

gaattcgcgg ccgcgtcgac cttaataaac aatagtatag taaaaacata atttttatat 60
 gcactggaaa ccaaaaaatg tgtgtaactc actttattgc gatattcact ttattgcaat 120
 attcacttta ttgcagtgat ctggaaccaa acctgcaata tctgcatggt atgcctatat 180
 atgtatgtct agatttaact tatgaaatgc caggttctct cgag 224

<210> 2430

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2430

gaattcgcgg ccgcgtcgac catattttta aaagtctttc tctacctac atcctcttct 60
 attctattat cccacatcc agttttatta attacttttt tctttctttc tggttttttt 120
 tttgtagaga tgaggtctcg ctatgtacaa gcacacacca ttgcacccgg cttagtttta 180
 ttagtttcta atatatcctt tcagtgtttc tttctgcaaa tccaaatata tagtcttatt 240
 tccccctttc ttacacaaaa agaagcaaac tatacatgct gttttgtcgt tttgctttat 300
 tcacacaatc tcgag 315

<210> 2431

<211> 214

<212> DNA

<213> Homo sapiens

<400> 2431

gaattcgcgg ccgcgtcgac aaaaaataaaa tatttttaaaa agcaggatgc aatattttat 60
 gcacactatg tgtattttatt tgccatact ctttcagctg gaagctatag aaacccaaat 120
 caaattgact tctgcaaaaa taacaaaaat caagaaattt cttggctcac aggaacctgt 180
 aaagcctgga ggaaagggtc tacaacagct cgag 214

<210> 2432
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 2432
 gaattcgcgg ccgcgtcgac gaagaaattt aggagcttgc cacaccagc catctcaaca 60
 acatcccaaa atgcattctt accatgctgg agatcccaaa gttctcagag gctcttgtgt 120
 tagaaacctg ggaccaagac caaatattaa aacaaaagat gttcctgtca catctatcac 180
 tgagggtctc gag 193

<210> 2433
 <211> 179
 <212> DNA
 <213> Homo sapiens

<400> 2433
 gaattcgcgg ccgcgtcgac taaaaaaaaa aaagtacaat ttggtgcact ttggcatatc 60
 ttaatatcca tgaaaccatc aagattatga ttatatccat catccctaga agtttcttcc 120
 tactgctttg tattcccttt cttaccctcc tcttgtatac ataccccccc atcctcgag 179

<210> 2434
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 2434
 gaattcgcgg ccgcgtcgac ctttttctaa agaataattt gttgtgggga cctccctcgc 60
 attataggta agaattgatt gtgttgaggc ttttgctgtg ttttatacca cttttctacc 120
 tgtgtttata gtgagagagt tggttctgct tttgttcagt ttgccacgtt gctagaacca 180
 gaagtcagtt ttttttccct tgaatttgtt ttgaaaattt gtgatgcagc tcgag 235

<210> 2435
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 2435
 gaattcgcgg ccgcgtcgac cgaaatggcg ccctccggga gtcttgagc tccccctggca 60
 gtcctgggtgc tgttgctttg ggggtgctcc tggacgcacg ggccggcgag caacgttcgc 120
 gtcctcacgg acgagaactg gagagaactg ctggaaggag actggatgat agaattttat 180
 gcccggtggt gccctgcttg tcaaaatctt caaccggaat gggaaagtgt tgctgaatgg 240
 ggagaagatc ttgaggttaa tattgcgaaa gtagatgtca cagagcagcc aggactgagt 300
 ggacggttta tcataactgc tcttctact atttatcatt gtaaagatgg tgaatttagg 360
 cgctatcctc gag 373

<210> 2436
 <211> 155
 <212> DNA
 <213> Homo sapiens

<400> 2436
 gaattcgcgg ccgcgtcgac tcaggctaag cctcagcttt gctctttgtt ttttatggta 60
 ttacttcagt aattattcca aagttctatt cattcatgct tgttttgtt ttgatttttag 120
 taaggacagt cctgtgtgaa ggcgcgtacc tcgag 155

<210> 2437
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 2437

gaattcgcgg ccgcgtcgac gagatacttt cctaaaaagg aaaaataaaa aacaaaatgg 60
 tgccactttg gggtgaagct actttgttag gcttgaattc atttatatgt cttttgattc 120
 ttaaaaaaac aaaaaacatt ccattagaag caccagtttt tttgctcaga ctttgtggat 180
 cagactctac actcaacaca ctcgag 206

<210> 2438

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2438

gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgg actctaacac ttgttaaact 60
 tatcccatgt tgcttatctt aggtcccat ttatttatac agtatatttt gctgaacctg 120
 tttttttatt ttgatttttt cttttttgaa acagaggctc tctctgttgc ccaggctgga 180
 gtgcagtggc atgacctcag ctactacaa cctccgcctc ccgcactcga g 231

<210> 2439

<211> 247

<212> DNA

<213> Homo sapiens

<400> 2439

gaattcgcgg ccgcgtcgac attttatgct tctccttttt tccccgcaac ttgaactgtg 60
 actctttcag atatttctta aatctgtatg agtcattttt taagcttagg gatttgatat 120
 gtattaatgt cccctttgtc ttctgtagat tttagcattt tattacctct taagaaactc 180
 tgggcccaga ctttcagtca tttttcttat tcctatggta cagtctctac ttaaaggctt 240
 actcgag 247

<210> 2440

<211> 195

<212> DNA

<213> Homo sapiens

<400> 2440

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccac ctactatact 60
 atgagtctgt atttgtgttg tttttttttt cttcgaaaac catctgtaac cattgttttt 120
 atcattttat tttatttttt aagttttatt tttttttttg agacagggtc ttgctctgtt 180
 accccggctc tcgag 195

<210> 2441

<211> 222

<212> DNA

<213> Homo sapiens

<400> 2441

gaattcgcgg ccgcgtcgac gagggatttg ggggtgtgag tgggaaggct gtgtctccgg 60
 aagaagaaat atacgtcccc acctcactct aattaaacct gcttttccag cgcgataaat 120
 attcaagata acttttgggt tgcatttcaa taacaaagtc ttgcaccact atcttcagtt 180
 taaaaaaaaa gtttaatgtt tgctctacgt ttctgcctcg ag 222

<210> 2442

<211> 266

<212> DNA

<213> Homo sapiens

<400> 2442

gaattcgcgg ccgcgtcgac cacagtgaac catatacata agcctataaa aaaagatttg 60
 tgcaatttga aagcctgtta attttttatg tagacatacc tacacacgaa agggttaaat 120
 tcacagcctt actagttcct tgcttcaggt atttcaattg gtctcctccc ctctattatta 180

ttattactac tagtactatt atttttgcac atagttaact gcccttcaat atgattctta 240
aaaagtgcgtg tttctgtggt ctcgag 266

<210> 2443
<211> 220
<212> DNA
<213> Homo sapiens

<400> 2443
gaattcgcgg ccgcgtcgac gcagtggtt gatgatgctg ttgaaatttg ttatgtcctt 60
tctgatttct gtctggtggg tctatccatt tctggccagt tgcactctta aggctggtgg 120
gttggtccgtt gtcaactcag caaccctcca tttcccttct caaagcagaa agagaaacca 180
ggttctatgt ttctccagat cctttcccat atctctcgag 220

<210> 2444
<211> 265
<212> DNA
<213> Homo sapiens

<400> 2444
gaattcgcgg ccgcgtcgac cacagctcta gcacatgtat tgttaaaagt ggagttacta 60
agtttttaggg tacatgtatt ttccactgta ctagataaca cccaattgat ttcacagaaa 120
taatttatat atcaattttt tattaagtcc ctttgtcatg tgttacaagc tttttttttt 180
tttagtttgt cttttggcct tgtttatggt gcttaaaaat tgtaaccaaa ttcaccaatt 240
aaaaaaaaatt gtggccagac tcgag 265

<210> 2445
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2445
gaattcgcgg ccgcgtcgac ggtgtagtgt atagtataac gagaaaggag tgtttatcag 60
aattttttta catacaggta ttatacctga ggcaataatg aaatggcatc taacagctcc 120
ccttctcgag 130

<210> 2446
<211> 218
<212> DNA
<213> Homo sapiens

<400> 2446
gaattcgcgg ccgcgtcgac gccttcccc tgtgaattta tatgaagaac ttcacagtgg 60
caggtctaaa cacaacagca gaccattaga gtagatctaa caggacaaaa gaaaatacaa 120
agagaagcaa gccagtggt aacagaaaca aggaaaaaac accaggaatg ctgtttacct 180
tgagcttttt aaagaacttt tatttccatt tactcgag 218

<210> 2447
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2447
gaattcgcgg ccgcgtcgac cgtcgattga ttctagacct gccttctcat tcttcatttt 60
cgataagcaa tctaggtctt gaattgcttc atgtgtttta atgttggtta acattcctgt 120
aaacctgatt atccaactgt tttctatgga tttctatctg tatgtctggg ttgttttttg 180
tttatttgat tttttgagac agggctcttg tctgccgctc aggggtggagt acagtggcat 240
gatcttggct cactgcaacc tccgcctccc gggctcaagc aatccactcg ag 292

<210> 2448

<211> 155

<212> DNA

<213> Homo sapiens

<400> 2448

gaattcgcgg ccgcgtcgac accagggcaa catttcttga attcttttcg aagatcaaaa 60
aaggaataga agcattcagg taatagtaca ttcttcttgg aagcctcagg atgcaggatt 120
tgcttgacat gaagctgccc atcagtacac tcgag 155

<210> 2449

<211> 452

<212> DNA

<213> Homo sapiens

<400> 2449

gaattcgcgg ccgcgtcgac atggacacaa gttcagtggg aggattagaa ttgactgac 60
agactcctgt tttattaggg agtacggcca tggcaactag tctcacgaat gtaggaaact 120
catttagtgg tccagctaata cctttagtgt ctatgactaa taagtttcag aactcgtcag 180
tggaagatga tgatgatgtt gtttttctcg aacctgtaca acctccccca ccttctgtac 240
cagtggtagc tgatcaaaga accataacat ttacatcatc aaaaaatgaa gaactacaag 300
gaaatgattc caaaattact ccttcctcaa aagagtggc atctcagaag ggaagtgtaa 360
gtgagacaat tgtcattgat gatgaagagg acatggaaac aaatcaaggg caagagaaaa 420
attcctcaa ttttattgaa cgaaacctcg ag 452

<210> 2450

<211> 100

<212> DNA

<213> Homo sapiens

<400> 2450

gaattcgcgg ccgcgtcgac ttaaatagat aatgctttta aaatatttaa tcagcatctt 60
attctataag agtagatcat tatgtccccc atccctcgag 100

<210> 2451

<211> 134

<212> DNA

<213> Homo sapiens

<400> 2451

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgcctcga gtggttggtac 60
tgtatagaga gcagagtagt aatcaccaca ctgggtatcc aatggcaatg aggtcatttt 120
cccagttcct cgag 134

<210> 2452

<211> 229

<212> DNA

<213> Homo sapiens

<400> 2452

gaattcgcgg ccgcgtcgac aaatgatatt aactggttac atgaatgggc ttaaaagtct 60
aatggtttac attattttct ttaagaagtc tattttttat ttatttattt ttatttattt 120
gagaccctgt ctcaataata ataataataa taatattatt ataatagggt cctatgcaca 180
gggaaccagg gaagactttg aagaggaagt acttacacgt agactcgag 229

<210> 2453

<211> 237

<212> DNA

<213> Homo sapiens

<400> 2453

```

gaattcgcgg ccgcgtcgac tctgtatcaa ggtatcaaac aagacctaa agattgaagg 60
tcctagtggg ggtattaaat ttttgcataa aaattaatga ccatgcaatg tttcacagcc 120
atctttctct tcctttctaa cagccttggt agatactgta tttttgagaa tatagagaca 180
gaaagagaag ttaataaccc attcagagtc tgggtctaaa tccaaggctc cctcgag 237

```

<210> 2454

<211> 150

<212> DNA

<213> Homo sapiens

<400> 2454

```

gaattcgcgg ccgcgtcgac ttctgcttta ttttgtttta tatgacattg atgatgtcca 60
tctatgttgg cccatataat tcttatcaat tattttaaat gctgttttagc attgtactat 120
ataaaaaat caaaacacag ctcctcgag 150

```

<210> 2455

<211> 259

<212> DNA

<213> Homo sapiens

<400> 2455

```

gaattcgcgg ccgcgtcgac acaagaaata tcagtcattg gtttatccag accagtcttt 60
catttccagt gttataggcc aaagcaaaca gacttcccaa catcaaatag tctcacgagc 120
tgaaatggca ttccttgctt gtaggcattg ggtagtaaca ctcctaggtg aaagaattgg 180
atcaagggtg acaatggcgg ccaggaaatg tctattatgc atgggggtgt tccttcttct 240
tgctgccgtc tcctcgag 259

```

<210> 2456

<211> 202

<212> DNA

<213> Homo sapiens

<400> 2456

```

gaattcgcgg ccgcgtcgac tggggaattt ccttaattct tccagtcctt ttattgagtt 60
ttcatttctg ttcttgattt ttaaacttct aatgagctct ttttctctg aatgtttgtt 120
gtggatatta atgattttta gaacatcttt cttcttggtg catactgtt atttggcaag 180
ttgcttcccc caaccctcg ag 202

```

<210> 2457

<211> 269

<212> DNA

<213> Homo sapiens

<400> 2457

```

gaattcgcgg ccgcgtcgac gaaaattata gaaaatccaa atatcctggc tggggtgaga 60
gtctgtaagc tagccagaga aaacagctaa ggctaagaaa ataaaatata ggagaaaatt 120
ctagaaaatc cagatatact ggctgggggt agagtctgta agctagccag agaaaagagc 180
tgaggcgaag acaataaaat ataggagaaa attctagaaa aatgaaaatt ggtttattgt 240
cccagatctg tacccttctc cccctcgag 269

```

<210> 2458

<211> 233

<212> DNA

<213> Homo sapiens

<400> 2458

```

gaattcgcgg ccgcgtcgac cactgatgct gaagtactat gagccttcgg aacttgttga 60
gagactacaa agtttttggt gttatgggtc cttaggttgg gtcatacat ttgggggtgg 120
acagaatcaa aagcagccct gttttccaaa tacctaaaaa cgacgacatt cctgagcaag 180
atagctctgg actttcaaat cttcagaaga gccaaatcca gggacgactc gag 233

```

<210> 2459

<211> 283

<212> DNA

<213> Homo sapiens

<400> 2459

```

gaattcgcg cgcgctcgac cctaaaccgt tgattgaage cagtgaagtt gtgcttttcc 60
tctacttcta ctctctctcc ccgacctttt tctgccagtg gtaggtgtat tcttaaattc 120
agacagggga agattctttc acatatcact cagttacctc ccaatctggg ggagtttttc 180
ttacaacttg ataccagata ccattaattt tacattcctg aataaaggcc tagtaccac 240
gcatatttca accatgcata tatcaagttc aaccgcgctc gag 283

```

<210> 2460

<211> 274

<212> DNA

<213> Homo sapiens

<400> 2460

```

gaattcgcg cgcgctcgac tatataagg ccaaaagtac ttaactttta aaagtttagca 60
atataatctc ttcttgctta taaggtaag tcttttgtag tagccttact agcaataata 120
gaaaattgaa aaaaagcatt ttagttcccg tgtttaaaaa tttttcttgt aagtgttggt 180
attgcaaatg aattattacc aaatgttaat aatctattat gtcttggttt ttaaagttaa 240
tgaattttta gcttttgagg gccccatct cgag 274

```

<210> 2461

<211> 159

<212> DNA

<213> Homo sapiens

<400> 2461

```

gaattcgcg cgcgctcgac ttttgctgg gttgtcacat ttatgttgtt agggttgtta 60
cggtatcctt ttgagctctc agagctctat ttgctatccc ctattttatt cccggtatta 120
gggtatttga tcctctctct ttttggtgtt agtctcgag 159

```

<210> 2462

<211> 196

<212> DNA

<213> Homo sapiens

<400> 2462

```

gaattcgcg cgcgctcgac aaaagttttt aggccagtgc aaattatgca gtagaacttg 60
tggttgcaaaa ggaattataa cccatacttt aaaaatgctt aatccctcat attcaatttc 120
atcaagcctt gtatacttct gcttaaatgt aattcaatcc ttgggtgtta tggcaaacag 180
aaaccaacg ctcgag 196

```

<210> 2463

<211> 266

<212> DNA

<213> Homo sapiens

<400> 2463

```

gaattcgcg cgcgctcgac agactgcgaa ggagagttat ttctgattca aattttttat 60
ttctggattt tcccatttgg ctctttttaa tagtttctgt gtattcactg aagttcccca 120
cctctccatg catgttggtc acattttcca gtaaattctt tagcattttt atcattattg 180
tgaagtcccc gtctaactta ttatctggac agtctctgag tatgtttcca ttgactgttt 240
cgtctcatgt agatcacgta ctcgag 266

```

<210> 2464

<211> 619

<212> DNA

<213> Homo sapiens

<400> 2464

```

gaattcgcgg ccgcgtcgac tgatggaact acatgaaact atggcatcct tacagagtcg 60
cctgcgggaga gcagagctac agcgaatgga agcccagggt gagcgagagt tacttcaggc 120
agccaaggag aacctgacag cccagggtgga acacctgcaa gcagctgtcg tagaagccag 180
ggctcaggca agtgctgctg gcatcctgga agaagacctg agaacggctc gctcagcact 240
gaagctgaaa aatgaggaag tagagagtga gcgtgagaga gcccaggctc tgcaagagca 300
gggcgaactg aaggtggccc aagggaaggc tctgcaagag aatttgccc tcctgaccca 360
gacctagct gaaagagaag aggaggtgga gactctgcgg ggacaaatcc aggaactgga 420
gaagcaacgg gaaatgcaga aggtctgttt ggaattgctg tctctggacc tgaagaagag 480
gaaccaagag gtagatctgc agcaagaaca gattcaggag ctagagaagt gtaggtctgt 540
tttagagcat ctgcccattg ccgtccagga gcgagagcag aagctgactg tgcagagggg 600
gcagatcaga gagctcgag 619

```

<210> 2465

<211> 202

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (44)

<400> 2465

```

gaattcgcgg ccgcgtcgac agaagtaaaa ggggtgttaag cttnttttaa atttttaaaa 60
tatgaaggaa attttttttt ttttaaaggc agggctcat ttgttaccga ggctctggag 120
tgcaagtgtg ctattacagc tcaactgcacc cttgacctgc caggetcaag tgatcctcct 180
gcctcagctc cccaccctcg ag 202

```

<210> 2466

<211> 263

<212> DNA

<213> Homo sapiens

<400> 2466

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctcagtat 60
cccccggaag tcattattat catttgccat ctgaatccat tataacctgt ttactttcaa 120
tttttatgtt ttttactttt atattttttt ggagacagta tctcactctg ttgccagac 180
tggaatgcag tggcatgatc atagctccct gcagccttga actcttgggc tcaagtaatc 240
cttccactcc aggccccctc gag 263

```

<210> 2467

<211> 249

<212> DNA

<213> Homo sapiens

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cactttgtca cccatgctgg agtgagtggt tgtgatcact gcttactgtg tcccttcaac 180
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<211> 240

<212> DNA

<213> Homo sapiens

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 ttttctgggt ccttactgtg ttttattctg atgggtccta gaaatccctc tcctgaccac 180
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 <212> DNA
 <213> Homo sapiens

<400> 2469
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 cttagtattg tgtatacact gcaacagttt agtattcaag aatatataaa atccccactt 180
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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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<210> 2472
 <211> 231
 <212> DNA
 <213> Homo sapiens

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 ccgctctgga aggtccatat tttcacagtc attcagctta cttgtttggt ccttttatgg 180
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 <212> DNA
 <213> Homo sapiens

<400> 2473
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<210> 2474

<211> 423

<212> DNA

<213> Homo sapiens

<400> 2474

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catcacctta agacttctta gcagtttttc ttgtgtgaca aaatatttta cacccttatt 240
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<211> 226

<212> DNA

<213> Homo sapiens

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acaaataaac acactctaata caagccaatc tccctattgt tcccttgaac ttgtcgggct 180
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<211> 273

<212> DNA

<213> Homo sapiens

<400> 2476

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<211> 245

<212> DNA

<213> Homo sapiens

<400> 2477

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<211> 268

<212> DNA

<213> Homo sapiens

<400> 2478

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tctcattgaa atgctttccc ttttgtatat agccagtgtt aaatccttaa atgcaatata 180
gcctctgatt attgagcttc ctcttaaaaa gattttttta ttttatgtag ccaacattgc 240

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agtactgtat gctcaaacac aactcgag

268

<210> 2479

<211> 224

<212> DNA

<213> Homo sapiens

<400> 2479

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cccggcaacc actaatctac tttctgttgc tattgatata cctgttctgg acattttaca 180
taaatggaat tataacaacat atgatgtttt tatgtgtgct cgag 224

<210> 2480

<211> 225

<212> DNA

<213> Homo sapiens

<400> 2480

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gtcaaagact ccattactgc taaagtactg tttatcttaa taatggtgac ttttgttgtt 180
gttttttttg agtcagggtc tcgctctgtt gcccaggacc tcgag 225

<210> 2481

<211> 226

<212> DNA

<213> Homo sapiens

<400> 2481

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aatttttgtt acatatgaac attcattttt aaatgctcag cctcaagtgc aggcattttt 180
gagtggcctg attacatatt cctcccacag caagtccgat ctcgag 226

<210> 2482

<211> 209

<212> DNA

<213> Homo sapiens

<400> 2482

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ttctattaat gtccttctct cgtagttcaa atatcaacct ttcccttctt atctatagga 180
ttctattgtt atttgggtgc atactcgag 209

<210> 2483

<211> 283

<212> DNA

<213> Homo sapiens

<400> 2483

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tctccgtgtt ggtcaggctg gtctcaaaact cctgacttca ggtgatccac ccacctcagc 180
ctcccaaaat gctgggatta caggcatgag ccaccttgcc cagccttttt ggaaaaattc 240
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<210> 2484

<211> 390

<212> DNA

<213> Homo sapiens

<400> 2484

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agctgtgagg acaggggcca cggcagccaa tgtggcctcg tgaggagtga ggctgggagc 180
caggggtgggc ctctgagctc ctctcaacc cagaaggtgt gaggccctct ccacttgac 240
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gccccggctt tggacagccc accttgactg cattgcctca cgctcgacat tttacagcgt 360
gagacttcgc aaagtgcgac aggtctcgag 390
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<210> 2485

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2485

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gggaaagtcc cagcttagag gatgaggaga ctatatctcg ag 102
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<210> 2486

<211> 216

<212> DNA

<213> Homo sapiens

<400> 2486

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cctggaagtc cagatggtgt ctttgatcaa acttgctag attttgaagt tgagagtgt 180
ggtggtatag ccaatagtag aggtttctcc ctcgag 216
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<210> 2487

<211> 186

<212> DNA

<213> Homo sapiens

<400> 2487

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atacctttgc tttccctttt catccatatt ttgatcctgg ataaggtctc tacgtgtgcg 180
ctcgag 186
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<210> 2488

<211> 230

<212> DNA

<213> Homo sapiens

<400> 2488

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tgtgtaagac ttgactttta acaagtaaag tgagccatca agccttatta aagatcaatt 180
tccacattgc ttgcccatat atgttgtatg tattgttctc tgtgctcgag 230
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<210> 2489

<211> 276

<212> DNA

<213> Homo sapiens

<400> 2489

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catctccttg ctacaagtgg ccacgtcctg ctcaaagccc tgcctcgcct cccctgcacc 180
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<210> 2490

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<212> DNA

<213> Homo sapiens

<400> 2490

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<210> 2491

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<212> DNA

<213> Homo sapiens

<400> 2491

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aagggagaag ccgagatact tccctcacag aaattgttaa tatcaatgct tagctttctt 180
gccagttcct catcactttt cagttgttct tccatcgctc ttcgcctttt ttctgcctgt 240
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<210> 2492

<211> 201

<212> DNA

<213> Homo sapiens

<400> 2492

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tccagcagca atcaaagtgt ggccttgatc aacagcacca gcctcacctt ggaatttatt 180
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<210> 2493

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<212> DNA

<213> Homo sapiens

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cctattgaag gttgctgagc tatttgaaaa actaaggaaa gtagagggtc gagtttctac 240
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<211> 210

<212> DNA

<213> Homo sapiens

<400> 2494

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<210> 2495

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<213> Homo sapiens

<400> 2495

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<212> DNA

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<211> 213

<212> DNA

<213> Homo sapiens

<400> 2497

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<210> 2498

<211> 221

<212> DNA

<213> Homo sapiens

<400> 2498

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ccatcatcat tatcatttct atcaccccat catcatcacc atcagcatca gcatcatcaa 180

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caccaatatt ttcatcatca ctatcatcac catccctega g

221

<210> 2499

<211> 347

<212> DNA

<213> Homo sapiens

<400> 2499

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caacttcact aataaaagta atagttcctt caactatttc tgagtctcta cttaaagaac 180
catcacattt ttcttcagag cctgcactgg ttacagcatc atccttttcc tctgtcacaa 240
cgctattttac attgggttcg attttaactg catgcacagc cagtaggtct gctgctctgt 300
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<212> DNA

<213> Homo sapiens

<400> 2500

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<210> 2501

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<213> Artificial Sequence

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<223> linker sequence

<400> 2501

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21

<210> 2502

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> linker sequence

<400> 2502

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21

<210> 2503

<211> 8

<212> DNA

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<220>

<223> linker sequence

<220>

<221> unsure
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<210> 2504
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<212> DNA
<213> Artificial Sequence

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<223> linker sequence

<220>
<221> unsure
<222> (1)..(9)

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<210> 2505
<211> 15
<212> DNA
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<220>
<223> linker sequence

<220>
<221> unsure
<222> (1)..(9)

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15

<210> 2506
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> linker sequence

<400> 2506
acggcctctt tggccctcga gaca

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24206

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :C07K 14/435; C12N 15/12

US CL :530/350; 536/23.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/350; 536/23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EMBL, Genbank, EMBLest, Genbankest, USPAT issued

search terms corresponding to SEQ ID NO: 252, 1538, 1598, 1734, 1881, 2012, 2104, 2114, 2183, 2348

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA743929, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 23 January 1998 positions 19-121 relevant to positions 126-24 of instant SEQ ID NO: 2183.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AF034544, MOEBIUS et al., 'Direct Submission,' 06 march 1998 positions 354-634 relevant to positions 2-282 of instant SEQ ID NO: 2114.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AA298572, ADAMS et al., 'Initial assessment of human gene diversity and expression patterns based upon 83 million nucleotides of cDNA sequence,' 18 April 1997, positions 49-229 relevant to positions 21-201 of instant SEQ ID NO: 2012.	4, 8

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

12 FEBRUARY 2000

Date of mailing of the international search report

29 FEB 2000

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24206

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number R24770, HILLIER et al., 'The WashU-Merck EST Project,' 20 April 1995, positions 1-209 relevant to positions 32-240 of instant SEQ ID NO: 1880.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA632004, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 28 October 1997, positions 172-405 relevant to positions 257-24 of instant SEQ ID NO: 1538.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA027135, HILLIER et al., 'WashU-Merck EST Project,' 09 May 1997, positions 1-343 relevant to positions 371-29 of instant SEQ ID NO: 252.	4, 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24206

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-8 SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348

Remark on Protest

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- The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NOS: 1-2500 and the corresponding polypeptides encoded by the nucleic acids of SEQ ID NOS: 1-2500.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species searched without payment of additional fees. The Applicant's representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348 searched.